Consumer
Challenge
Panel

CCP10 Response to AER Issues paper and revenue Proposals for NSW Electricity Distribution Businesses 2019-24:

August 2018

Submitted to: **NSW2019-24@aer.gov.au**

'CCP10 has reviewed the regulatory proposals for 2019-24 from Ausgrid, Endeavour Energy and Essential Energy as well as the AER's issues paper associated with these proposals, We can confirm that we have made relevant checks to ensure that to the best of our knowledge, the document does not contain any confidential material or material that is commercial in confidence. This document can be published on the AER website'

Executive Summary

The three regulatory proposals lodged by the NSW electricity distribution businesses were lodged under unique circumstances that have impacted on each of the proposals and these circumstances need to be recognised in considering the proposals. Particularly noteworthy is the considerable advances that have been made in consumer and stakeholder engagement by each of the three NSW businesses since the 2014-19 proposals were developed.

Opex

In our view the opex forecasts of Ausgrid and Endeavour Energy are not consistent with efficient operation of the networks in the long-term interests of consumers and cannot be accepted. In contrast, we consider the Essential Energy forecasts can be accepted as they have incorporated ongoing productivity gains that anticipate the benefits of the IT spending and business/process re-engineering proposed.

Base

There is an obligation on the AER to carefully review and test the base year expenditures to determine if they can be accepted as efficient. Further data and development of the benchmarking models, together with the concordance of the 2017/18 expenditures with the forecast from the 2013 model may provide greater faith in the AER's benchmarking models. This may encourage the AER to consider:

1. Should the efficiency frontier be moving on a regular basis, to reflect improvements in efficiency at the frontier? This shift would be evident in benchmarking reports, to reflect an expectation of dynamic improvement in efficiency rather than having a static frontier.
2. Should the 'efficiency band' of 75% - 100% of the efficiency frontier be narrowed over time to also reflect expectations of dynamic efficiency and increasing confidence in the benchmarking as the data series expands?

However, the assessment of the efficiency of the base year expenditures will require a consideration of a broad range of information rather than relying too heavily on the benchmarking model.

Step

It is doubtful that the step changes identified, but not necessarily claimed by some businesses, would meet the requirements for a step change; i.e. they would not warrant treatment as new, significant, exogenously imposed costs that are beyond the purview of standard business operating costs.

(Trend) Productivity

CCP10 is disappointed by zero or low productivity proposals and believes a trend productivity assumption can be supported by:

1. a closer examination of the data available to the AER on productivity trends,
2. reference to broader economy-wide trends, and
3. inclusion of the expectation that businesses will seek productivity offsets in negotiating real wage increases.

The evidence supports a minimum opex productivity adjustment of 1.5-2.0% p.a.. In addition to this, given the current relative productivity of the NSW businesses, a provision for some catch-up efficiency should be included in the annual productivity allowance if the base opex is accepted as efficient.

Incentive Schemes

CCP10 is strongly of the opinion that the expected value of EBSS should be zero and if not, positive expected value should be built into cash flows.

The low actual expenditure against allowances for the Demand Management Incentive Allowances for the three businesses needs to be carefully considered by the AER in assessing DMIA bids.

Considering incentive schemes in combination, CCP10 encourages the AER to review all incentive schemes cohesively to make sure that businesses (including those at the efficiency frontier) are incentivised to save costs and actively pursue non-network solutions.

CAPEX

A major focus for this submission is consideration of capital expenditure proposals for the three businesses. Capex spending must be prudent to be in the best interests of consumers, particularly after very substantial capital expenditure in 2009-14 regulatory periods.

CCP10 believes that the increase in assets, well above the rate of demand growth and customer numbers, presents the opportunity for a 'dividend' to be returned to consumers from the inherent capacity and reliability that comes from that rise in investment.

Endeavour Energy capex

Despite the strong case for investment to meet the energy demands of new residential and commercial development in the Endeavour area, CCP10 is strongly of the opinion that Endeavour Energy has not made a reasonable case in justifying this significant increase in expenditure above that required for the current period. We believe there is a strong case for significantly reduced investment, even to the order of 20%, as a result of addressing the opportunities noted in this report. We believe such reductions in investment will have only minimal impact on the performance of the network and delivery of services.

Capital Contributions for new developments has been hotly debated in the course of developing this proposal

CCP10 maintains our concerns that:

a) the change to the policy had not been taken to the Endeavour Consumer Consultative Committee (CCC) for discussion and endorsement prior to its

enactment, casting some doubt as to the effectiveness and approach to the role of their CCC;

b) some doubt that the change in policy, in requiring a reduced contribution by developers to the connection or electricity to new land subdivisions will in fact be passed on in full to customers purchasing new blocks of land; and

c) the discussion that Endeavour, who present themselves as being an 'outlier' when compared to the proportion of developer contributions in other jurisdictions, are not a 'laggard' but actually a 'leader' in representing emerging expectations of energy customers.

On that basis, the justification for the change in the contributions policy and the demonstration that the connections process in Endeavour is becoming more efficient is rejected.

Put simply, Endeavour Energy was not able to clearly explain to their customers where the huge investment in 2009-14 went, and why it is not an advantage in mitigating the significant increase in expenditure requirements for the next period.

CCP10 believes that there is an opportunity for the AER to not accept the proposed increase in the replacement capital expenditure, encouraging Endeavour to focus on failure data, risk mitigation strategies, innovation and Demand Management.

The following additional capex related comments are also highlighted:

- Expenditure on reliability improvement is accepted by the CCP10.
- We also accept the required investment in developing a better understanding of the low voltage network renewing metering and addressing power quality, enhancing Endeavour's capability to integrate DER and undertake more effective demand management.
- The investment in the Distribution Management System (DMS) of $24M should be investigated given the significant IT expenditure programme, asking why this funding for Operational Technology is not considered along with other IT programmes.
- As with operating costs, we would expect to see ongoing productivity benefits reducing the 'back-office' costs and overheads, especially after the significant IT spend ($31M, 34%) overspend in 2014-19.
- We believe that the ICT Investment plan is not a customer-focused document, and does not support transparent, validated and efficient ICT investment.

<u>Ausgrid Capex</u>

Overall, CCP10 believes that there are many opportunities available to Ausgrid to reduce capital expenditure whilst maintaining service levels, through an opportunity to better respond to the risk of plant failures (repex) and leadership in the application of demand management and new technologies. An aggressive approach to driving down the cost of work through design opportunities and work planning appear available. Opportunities to reduce non-system investment may also be available.

We believe that the prudency and efficiency of expenditure in most categories of capital investment of the Ausgrid Revenue Proposal have not been established.

Ausgrid is noted as having the highest 'excess growth as a percentage of RAB growth' (Grattan, figure 2 above). Ausgrid invested close to $7.6B in network and non-network assets in the 2009-14 period; over $5B of which was in new plant and equipment.

We also expect that level of prior expenditure, along with the efficiencies becoming available to Ausgrid, present a significant opportunity to reduce the level of investment required to maintain a safe and reliable network, times of changing customer requirements.

Whilst we support the Ausgrid planning process, we believe a conservative approach to load growth has been taken, particularly in the impact of innovative demand management and customer's response to new forms of electricity pricing. We believe that the material allowances for Income / GSP and a possible underestimation of the opportunities for energy efficiency in new block developments may lead to the growth forecasts being overstated.

CCP10 also highlights the following aspects of Ausgrid's capex proposal.

- the inclusion of the replacement of the centralised Demand Control System remains unclear in the proposal
- there are opportunities to further consider reductions in the investment in replacing fluid-filled cables.
- In lieu of actual data, we believe that Ausgrid is taking a relatively conservative view to the risk of plant failure leading to the interruption of supply or an immediate safety risk. In addition, the opportunity to drive further cost reductions for the work through staging projects in a manner similar to PSF exists.
- the true and total cost of Ausgrid's cyber security investment, and its benefits, remains unknown.
- whilst we understand that vehicle renewal cycles and the mix of heavy and light vehicles has a significant influence on fleet investment, we suggest that the request for 2019-24 be reviewed as the amount of required capital appears inconsistent with the reported reduction in fleet numbers.
- the justification of the replacement of the DMS, whilst supported in principle, should be examined closely by the AER in regard to further related costs and the delivery of operational efficiencies and customer benefits.

As part of the stakeholder engagement, it was not clear that this proposal reflected the efficiencies and reduction in cost drivers that may be realised over the period. We would expect that Ausgrid has incorporated reductions in overhead costs due to, in particular:

i) efficiencies derived from the investment in information technology, in particular SAP,

ii) reductions in the fleet running costs from lower vehicle count as fleet is rationalised, and

iii) efficiencies in logistics and warehousing arising from the refurbishment and reconstruction of properties.

Ausgrid has not provided stakeholders with adequate visibility as to the business cases for the proposed investments. Whilst the objectives are admirable, we cannot support the proposed level of investment in IT as information regarding the benefits and quality of previous investments is not provided, so the proposals are without context.

We would support a reduction in the IT investment of up to 20% on this basis.

Essential Energy Capex

CCP10 is highly supportive of the aggressive approach that Essential Energy is taking in reducing capital expenditure whilst working to maintain service levels, safety and network performance. We recognise that Essential is underpinning these improvements though a significant investment in information technology and data analytics, which, by all indications, is a valid and reasonable approach.

We do have concerns about Essential's ability to deliver these reductions in full. Implementing sweeping changes to IT, with the associated data management cultural change and ability to manage core costs such as labour, have been proven elsewhere to be difficult. The changes will also be subject to environmental factors.

Essential Energy is commended for the initiative, and trust that Essential has a powerful and sensitive suite of supporting performance measures and monitoring mechanisms to ensure successful change without impacting the safety and quality of the electricity supply to their customers.

Our concerns regarding transparency, efficiency and project management of IT exist with Essential Energy as they do with other network businesses. In this case however, as Essential has demonstrated a commitment to the technology investment as a strong basis of improved business efficiency, we support the proposed investment.

TSS

A separate CCP tariff subpanel (CCP21) has been established and CCP 10 supports their advocating for a faster transition to demand tariffs with a proposed mid regulatory period review of tariffs coupled with greater integration of demand management strategies. Endeavour Energy goes the furthest of the three businesses in proposing a TSS that meets both customer and tariff reform objectives.

Consumer Engagement

Considerable effort was put into a range of consumer engagement activities by each business and all made sound efforts in documenting what was heard from consumers and other stakeholders. Some of the excellent engagement by Ausgrid and Endeavour Energy was undone by proposals that did not reflect consumer input as strongly as it should have. We observed Essential Energy to be more proactive in addressing consumer concerns and they responded more holistically to consumer and stakeholder input, as well as being prepared to have the 'tough conversations' and to seek solutions.

Capability of Acceptance of proposals

CCP10 does not consider that either the Ausgrid or Endeavour Energy proposals, as lodged, are capable of acceptance. We contend that both of these businesses need to engage further with consumers and stakeholders to modify their proposals and to present more realistic revised revenue proposals. The Essential Energy 30th April 2018 proposal is capable of acceptance, but will require ongoing discussion about approaches to reduce the carried forward impacts of the RAB.

SECTION 1: Context

1. Context for NSW Distribution proposals, 2019-24

In 2014 when the 2014-19 regulatory proposals were being considered, circumstances were very different to those that exist now as stakeholders and the AER consider regulatory proposals for 2019-24 from three New South Wales electricity businesses, Ausgrid, Endeavour Energy and Essential Energy.

The very first Consumer Challenge Panel (CCP1) was appointed in 2014 to consider the three government owned New South Wales electricity businesses that came together under the banner of "networks New South Wales." A transitional decision was made for the first year of the 2014-19 reset period because during 2013 the AER had conducted its better regulation process in response to the network regulation changes that the AEMC had finalised in late 2012. The rule changes and better regulation program were themselves responses to considerable consumer concern about rising electricity prices reflected in similar government concern.

Some of the concern about rising prices in New South Wales was due to substantial capital expenditure programs conducted by the three businesses during the 2009-14 regulatory period when the NSW state government had placed a high priority on network reliability. This period also coincided with the global financial crisis (GFC) when capital was very tight for many businesses, so the shadow of the GFC probably added to the capital costs that were included in the 2014-19 regulatory proposals.

The Final decisions for the three New South Wales businesses released by the AER in 2015 reduced the allowed revenue sought by the businesses by amounts in the order of 30%. These reductions were partly based on lower rates of return since the risk associated with the GFC years had abated as well as significant cuts to opex. The AER sent the clear message to the businesses that they were operating inefficiently, with the decisions requiring immediate transition to opex at more efficient levels. A benchmarking report was released with the AER's final decisions to support their arguments of relative inefficiency for the New South Wales business.

Each of the AER's decisions for the NSW network businesses was appealed, through limited merits review (LMR) and the LMR decisions were subsequently appealed by the AER. The end result of this lengthy process was that aspects of the 2014-19 decisions were remitted back to the AER to be remade, specifically dealing with return on debt, operating costs and gamma (the allowance for tax imputation credits). The impact of all of this is that the revenue proposals for 2019-24 needed to be submitted by the NSW network businesses, without the revenue allowance for the 2014-19 period being resolved. The process for remaking the decisions has varied for each business. Essential Energy lodged a proposal with the AER for the remitted decision on 30 November 2017 with the AER making a final

decision for Essential Energy on 31 May 2018. Endeavour Energy submitted a proposal with the AER for their remitted decision on 5 April 2018 and the AER published its draft decision on 20 July 2018. Both Essential Energy and Endeavour Energy worked closely with consumer groups in developing pragmatic and realistic proposals that have been capable of support by key organisations advocating consumer interests. At the time of lodging this submission regrettably Ausgrid has not formally made a proposal for its remitted decision despite consistent encouragement from CCP10 and the AER to attempt to resolve this protracted dispute.

Meanwhile, two of the three businesses, Ausgrid and Endeavour Energy were partially sold, with new owners coming on board during 2017.

As consumers continue to feel impacts of rising energy prices, the Federal Government has removed the option for network businesses to appeal decisions through LMR and the Federal government has announced that the rate of return guideline developed in 2018 will be binding on networks and the AER.

The unique circumstances impacting on 2019-24 revenue proposals can be summarised as:

- 2014-19 determination not resolved before 2019-24 lodged
- 2012 rule changes and "Better Regulation" now embedded - last time they were 'brand new'
- New ownership for Ausgrid and Endeavour
- NSW Businesses in transition from inefficient to efficient – significant progress
- New binding Rate of Return guideline being developed by the AER
- Benchmarking now better established, compared to 2015.

The three New South Wales businesses as well as ActewAGL from the ACT (now Evoenergy) were originally scheduled to lodge their regulatory proposals at the end of January 2018. Each of the New South Wales businesses sought three-month extensions of time for lodgement from the AER. In Essential Energy's case this was to enable it to resolve the 2014-19 proposal prior to lodging its 2019-24 proposal. The Essential extension was supported by a number of consumer groups. The Endeavour Energy and Ausgrid requests for an extension were to enable them to improve their consumer engagement. These requests were granted by the AER and generally supported by consumer groups. A condition of the approvals for Endeavour Energy and Ausgrid was that both businesses would engage in more extensive consumer engagement. CCP10 encouraged the AER staff to also participate in these engagement sessions as part of a more open AER 2.0 approach. The time commitment was extensive for both consumer groups and the AER.

The AER is currently undertaking a review of its approach to rate of return and the Commonwealth government has stated that it intends that this rate of return will be binding on all network businesses including the three NSW businesses and the AER. It is likely that this legislation will be passed before the New South Wales regulatory proposals are finalised

and therefore, we expect that the new binding rate of return guideline will apply. We support this outcome. Consequently we have given very little consideration to these issues, in this submission.

This context is significant and we suggest unique to the point that it is difficult to imagine this set of circumstances ever aligning again for a network regulatory process in Australia.

In addition to these NSW specific context issues, energy affordability has been an ongoing media story for a number of years and energy affordability, particularly coupled with climate change responses has meant that energy has remained a contested political issue for state and national governments. A significant number of rule change proposals have been considered over the last 2-3 years, including a move to five-minute settlement, which will have impacts for network businesses. There have also been a number of reviews and enquiries including an enquiry by the chief scientist, Professor Alan Finkel, and most recently, on 11th July 2018, the ACCC released a detailed report concerning energy affordability. We recognise that there are many processes that provide additional context to these New South Wales distribution business price proposals, the one that we will refer to the most is the most recent report that has been produced by the ACCC.

CCP10 acknowledges that a considerable amount of effort and goodwill has been demonstrated by AER staff on all three network businesses prior to them lodging their draft proposals on 30 April 2018. The discussion that follows in this submission is cognisant of both the unique circumstances that we have summarised above, and the efforts made by staff from the network businesses and the AER to move to more productive approaches to network regulatory processes.

Context 2019-24 – uptake of new technologies

For each of the businesses, there are also significant topics to address over the next 5 years. Each of the businesses confronts rapid changes, particularly in technology: for example domestic solar generation, batteries, and aspects of the "Smart Network." The CSIRO / ENA "Network Transformation Roadmap" has been developed over recent years and has, to varying degrees, informed the narrative and planning for each business.

Ausgrid, for example, has identified growing solar PV and battery penetration in its network, which has implications for how the grid is developed and managed in the future. Figure 1 is an Ausgrid chart that shows projections for growing penetration of these two technologies. The chart in figure 2 is taken from Endeavour Energy and shows their projections for shifting peak demand and diminishing load requirements in the middle of the day on sunny days as a result of increased penetration of solar PV for residential and small business customers.

These issues are not unique to New South Wales electricity distribution businesses, but they are material and will need consideration and some response during 2019-24. CCP10 endorses the advice given by CCP14 to the AER as part of the SAPN 2020-25 reset.

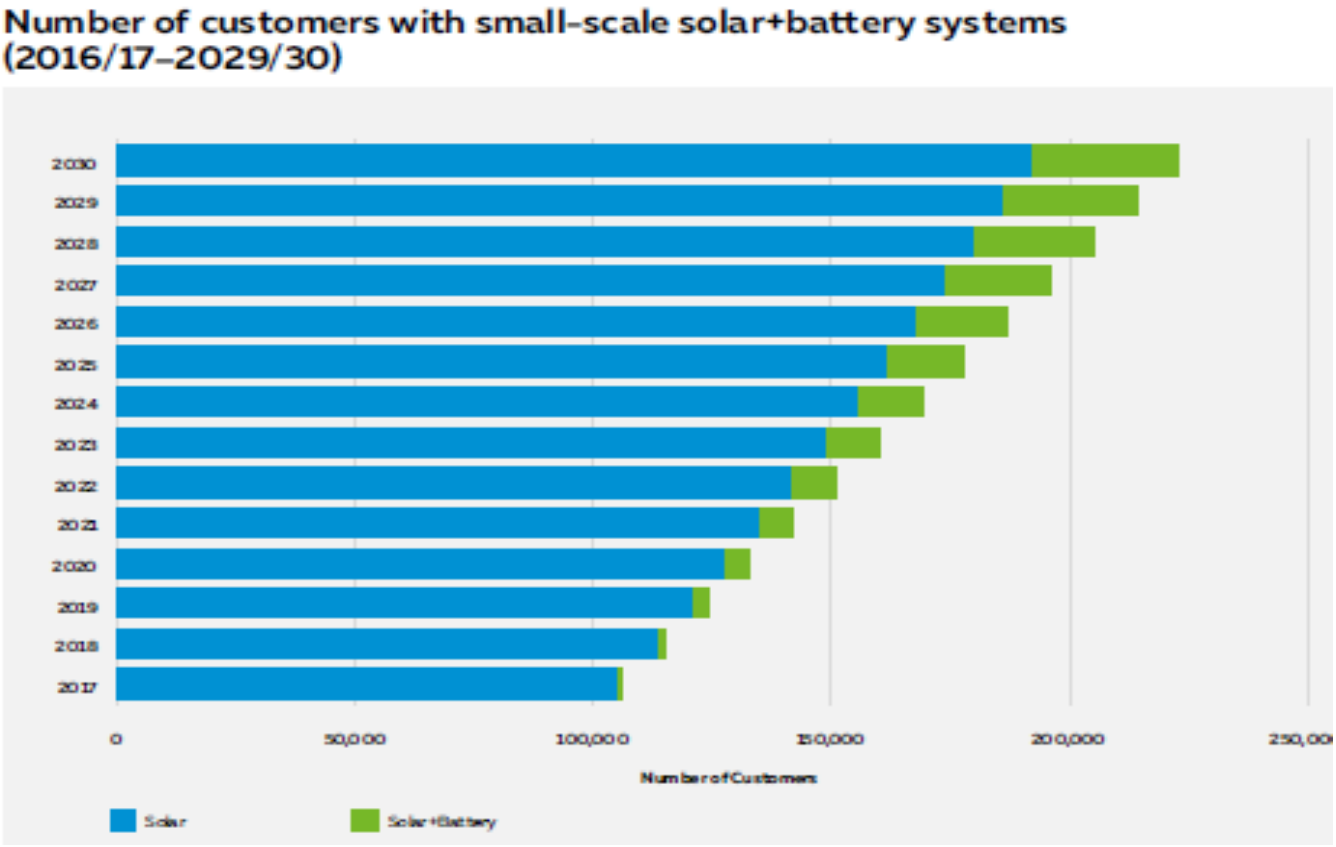


Figure 1, Source: Ausgrid Revenue proposal 2019-24

Endeavour, Changing Peak

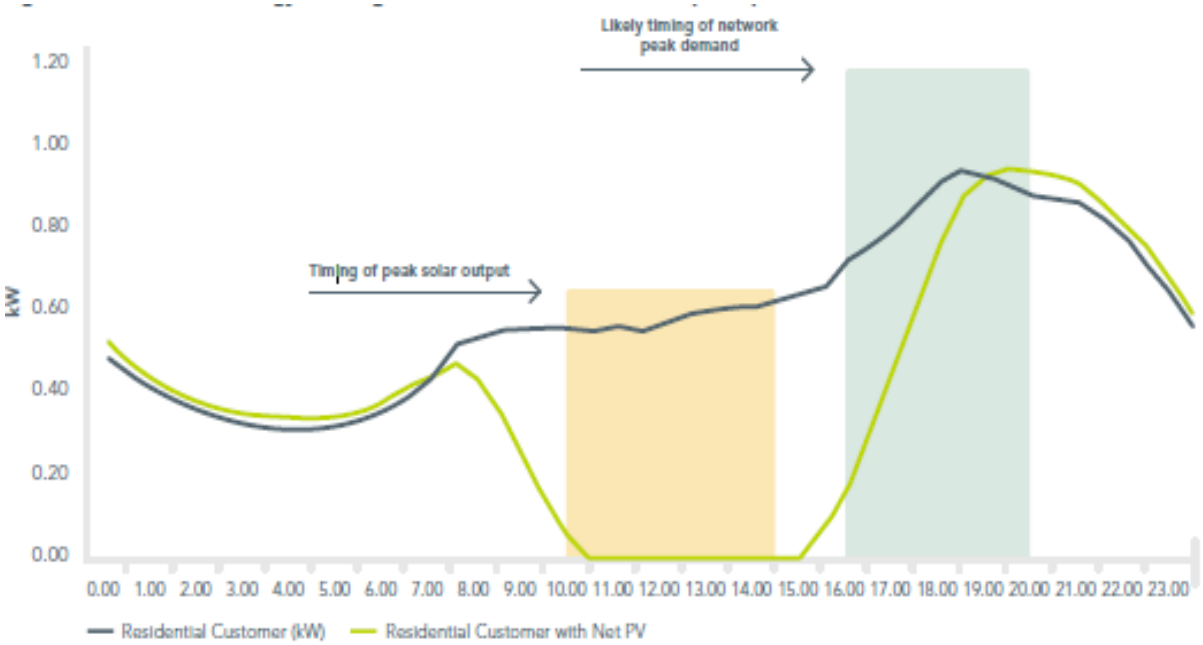


Figure 2, Source: Endeavour Energy Revenue proposal 2019-24

Context 2019-24 - Consumer Engagement intent and approaches

Over recent years, and the last four years in particular, the importance of active consumer engagement has been increasingly recognised by network businesses, the AER, policymakers and other stakeholders.

Each of the New South Wales businesses has committed to consumer engagement in the development of their 2019-24 revenue proposals with the range and extent of engagement significantly improving on engagement in the development of their 2014-19 proposals. This increased commitment to consumer engagement is recognised and appreciated.

When CCP10 first met each of the businesses, we highlighted our intended focus on consumer engagement and said that we would be considering their engagement under three headings:

- what was tried?
- what was heard?
- what was applied?

We will return to these questions later in this submission, for now we identify one example of significantly improved consumer engagement as summarised by the following diagram in figure 3 from the Essential Energy revenue proposal. This diagram summarises a breadth of engagement methodologies and a well-developed alignment with key stakeholders.

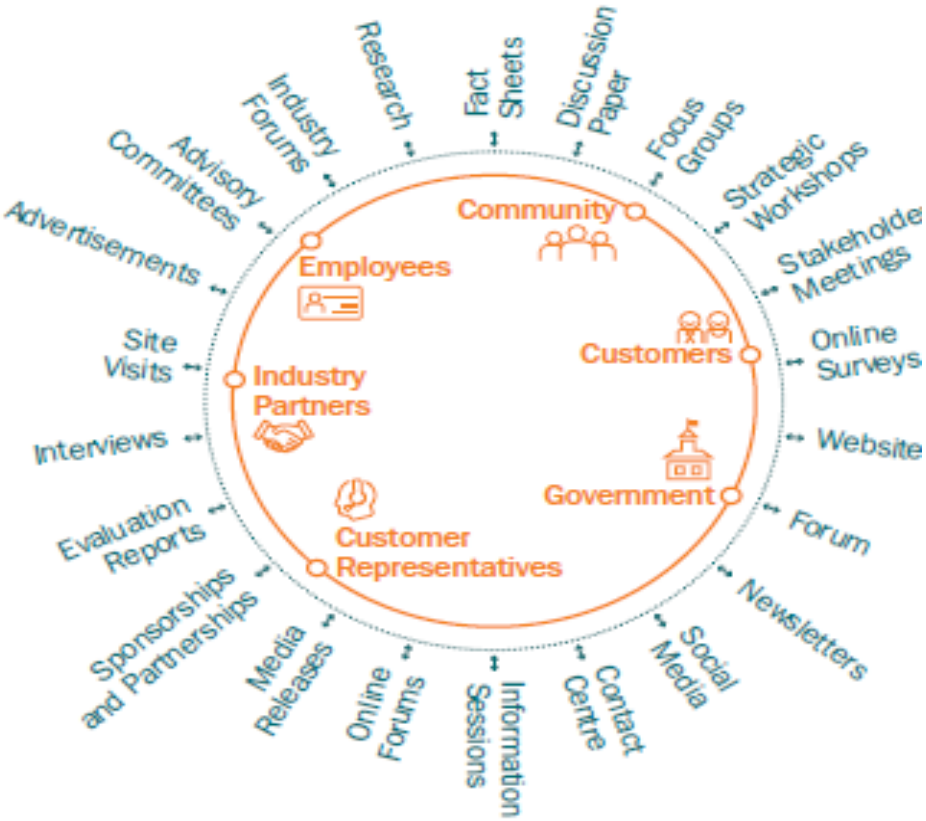


Figure 3, Source: Essential Energy regulatory proposal 2019-24

Context 2019-24 – transition to efficiency

Each of the businesses has also made significant improvements in the efficiency of their business operations during the 2014-19 period, in particular with significant increases in operating cost efficiency, with increasing efficiency related to managing enterprise agreements.

Maintaining and then building on these efficiency gains remains a priority for consumer groups for each business for 2019-24.

SECTION 2: 2019-24 Proposals

Chart 1 summarises the key cost proposals for each of the three New South Wales electricity distribution businesses for 2019-24:

19-24 Summary	Ausgrid	Endeavour	Essential
Total Bid ($18/19m, unsmoothed)	7,971.9	4,335	5,137
Total Opex ($m)	2,402	1,504	1,698
Total Capex ($m)	3,083.7	2,165	2,100
IT Spend ($m)	215	91.2	164
RAB June 19 (real $m)	15,716	6,512	8215
RAB June 24 (real, $m)	16,127	7,294	8,684
% change	+ 2.6%	+12.0%	+5.7%

Chart 1, Source: NSW regulatory proposals 2019-24

The table shown as chart 2 summarises price paths for each of the businesses for 2019-24, with price paths for both remittal inclusive and net of remittal impacts for both Endeavour Energy and Essential Energy.

		2019-20	2020-21	2021-22	2022-23	2023-24
Ausgrid	**Without Remittal**	**-5.7%**	**0**	**0**	**0**	**0**
	With Remittal	N.A.	N.A.	N.A.	N.A.	N.A.
Endeavour	**Without Remittal**	**+0.8%**	**+0.8%**	**+0.8%**	**+0.8%**	**+0.8%**
	With Remittal	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%
Essential	**Without Remittal**	**+1.59%**	**+1.59%**	**+1.59%**	**+1.59%**	**+1.59%**

	With Remittal	+1.43%	+1.43%	+1.43%	+1.43%	+1.43%

Chart 2, Source: NSW regulatory proposals 2019-24

Note: Endeavour Energy has estimated that if both the effect of the remittal and the EBSS were removed the annual real change in prices would be -1.0%. CCP10 considers that EBSS was an integral part of the 2014-19 determination, so the effect of the EBSS should not be removed in comparing the proposed price path with prices under the remitted 2014-19 decision.

CCP10 Proposal Assessment Tool *('Heat Map')*

Considering three major network businesses at the same time and being aware of many contextual issues provided a challenge for CCP10 in terms of how best to consider the issues common to each business while also considering the specific circumstances for each business, or maintaining an unequivocal focus on the long-term interests of consumers.

Purpose

To assist in the assessment of the revenue proposals for the three NSW distributors, CCP10 developed an excel-based tool. This assessment tool – known as the 'heat map' – was first used in the preparation of the CCP10 presentation at the Issues Forum on the 3rd July 2018.

The tool was developed to assist with four objectives:

1. Through a set of Key Result Areas (KRAs) and underlying performance attributes, to provide a consistent assessment that 'covered the field' for all distributors;
2. Balance quantitative and qualitative assessments and impressions in a common framework;
3. By grouping issues of interest to consumers, to identify areas of good performance and opportunity not only within the one distributor but also across the state; and
4. Provide an efficient visual representation of performance at the forum.

The heat map has been developed through the eyes of consumers and is in two parts. Firstly we ask what a consumer would expect an efficient and well-run business to look like, the internal focus and functioning of the business. The second part is to consider the consumer facing activities and responsibilities of a business.

Components of the tool

The heat map has four main components.

1. The relationship (subject) tree for the approximately 130 performance attributes, rolled up to a number of functional areas which in turn correlate to 13 KRAs or 'Level 1 attributes'

2. An assessment score allocation, where scores between 1 and 10 are allocated for each performance attribute, which are then weighted and then aggregated to each KRA
3. An assessment rating guide, assisting with consistency in interpreting the performance. Generally, the guide is:

Range	Performance
Poor (0 – 2)	No evidence of consideration of a significant issue, or poor performance.
Low (2 – 4)	Considered but not acted upon, unclear, not meeting customers' expectations, no action plan
Midscale (5)	Performance or consideration of an issue in a manner consistent with that of a reasonable and engaged organisation. Meets expectations.
High (6 – 7)	Leadership or initiative that exceeds the expectations of an 'average' utility, well considered, active, engaged
Exceptional (7+)	Demonstrating best practice, industry leader, intuitive

Chart 3, Source: CCP10

4. Reporting, graphing and a visual representation of the aggregated assessment, as shown in chart 4.

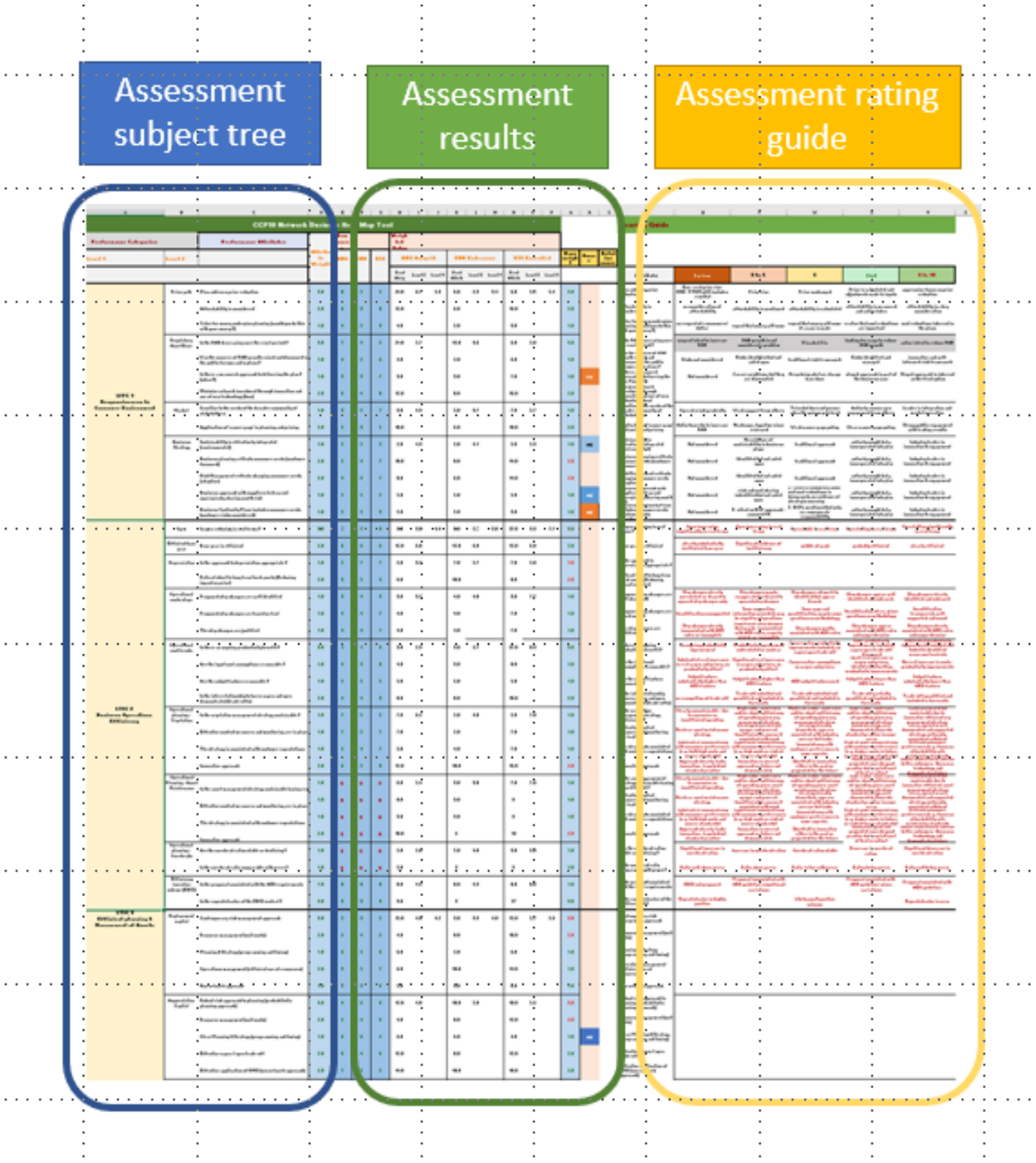


Chart 4, Source: CCP10

Assessment KRAs

There are 13 key result areas:

- 7 regarding the long-term interests of consumers;
- 1 in relation to the Tariff Structure Statement (TSS), and

- 5 related to the engagement processes undertaken by the distributor.

These KRAs are:

1. Long-term interests of consumers
    a. Is the business responsive to the changing needs and expectations in the consumer environment? This includes a customer-sensitive business strategy and a decreasing asset base and price path.
    b. Is the business operating at a level of efficiency required by customers? Cost trends, productivity, operational costs and asset planning are in this measure.
    c. Are the assets being managed in a manner consistent with customer and community needs? Capital investment is a major part of this measure.
    d. Does the company use information and technology well in meeting customer's expectations?
    e. What is the company's approach to commercial issues, including delivering value to customers from past investments, accepting external financial measures and a fair approach to 'causer pays'?
    f. Is the company providing value for money in meeting customer's needs efficiently, including good network performance and service delivery?
    g. Does the company understand and embrace future network needs in their planning, considering the risk of stranded assets and effectively implementing and innovating in demand management?
2. Tariff Structure statement (TSS)

Is the TSS based on effective analysis, is it clear and unambiguous, focussed on delivery and outcomes, and does it reflect innovation and strong customer engagement?

3. Engagement
    a. What was tried? Was the discovery of issues important to consumers done effectively, using the right information, through a range of engagement activities?
    b. What was heard? Were all issues identified in a complete programme, and these issues effectively and impartially analysed, recorded and incorporated into immediate, medium term and long-term plans? Did the engagement include all stakeholders?
    c. Was the engagement timely, and was good use made of the extension for the proposal date? Did an effective proposal capable of being accepted result?
    d. What was applied? Were the issues incorporated into immediate, medium term and long term plans? Are these learnings being integrated into the business' DNA? Is there a clear willingness to accept the engagement?
    e. Did the engagement deliver value for customers, through a positive and effective proposal that is clear to understand, with a strong narrative? Attributes of a positive proposal include respect for a consumer's time and

money in preparing a clear proposal that endears trust, and reflects an engaged, nimble and customer-focussed utility.

Results and outputs of the assessment tool

The tool produces a range of outputs, including:

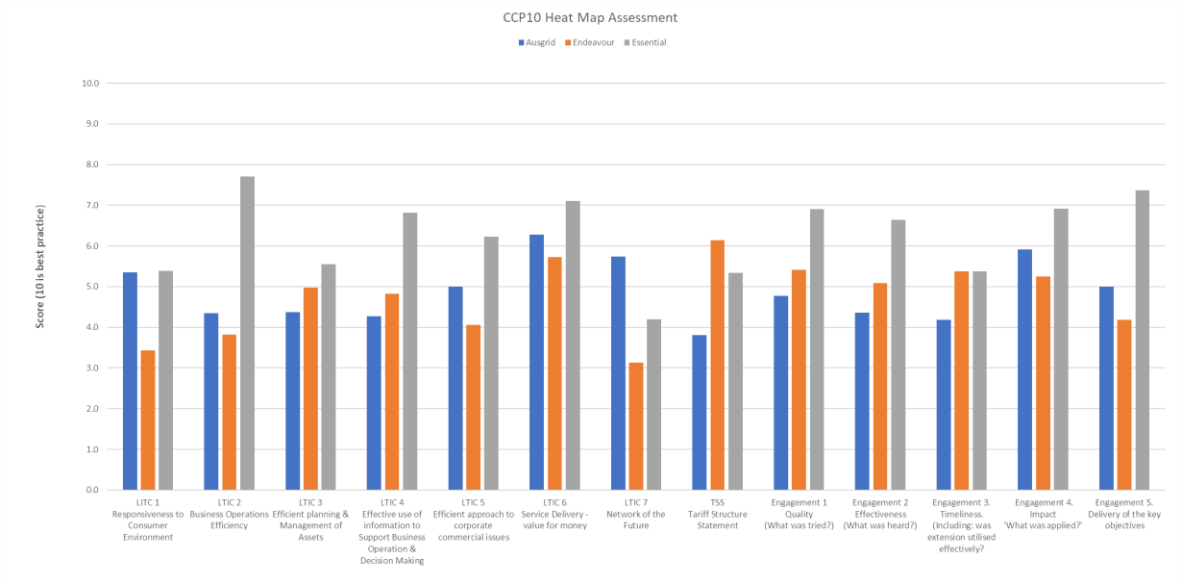


Figure 4, Source: CCP10

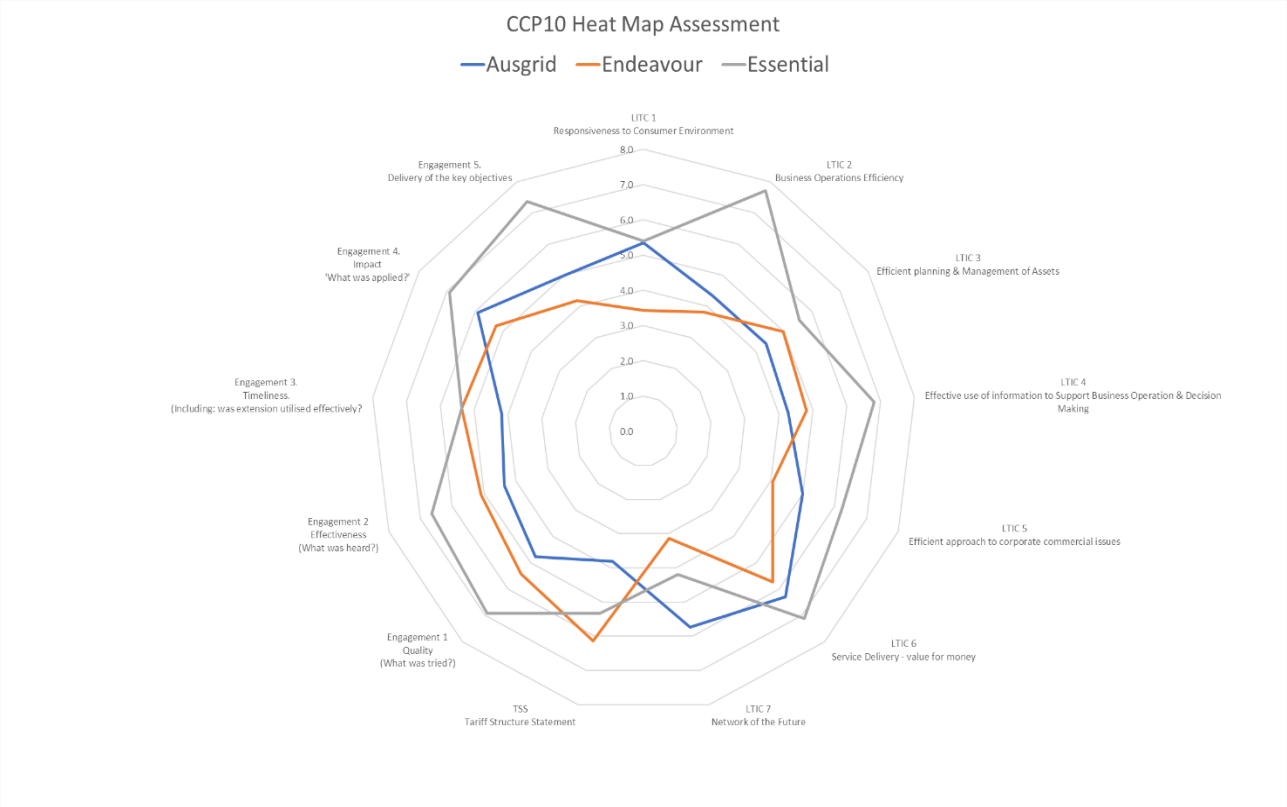


Figure 5, Source: CCP10

Heat map – Headline Observations

Internal focus of the business

Chart 5, Source: CCP10

Customer facing aspects.

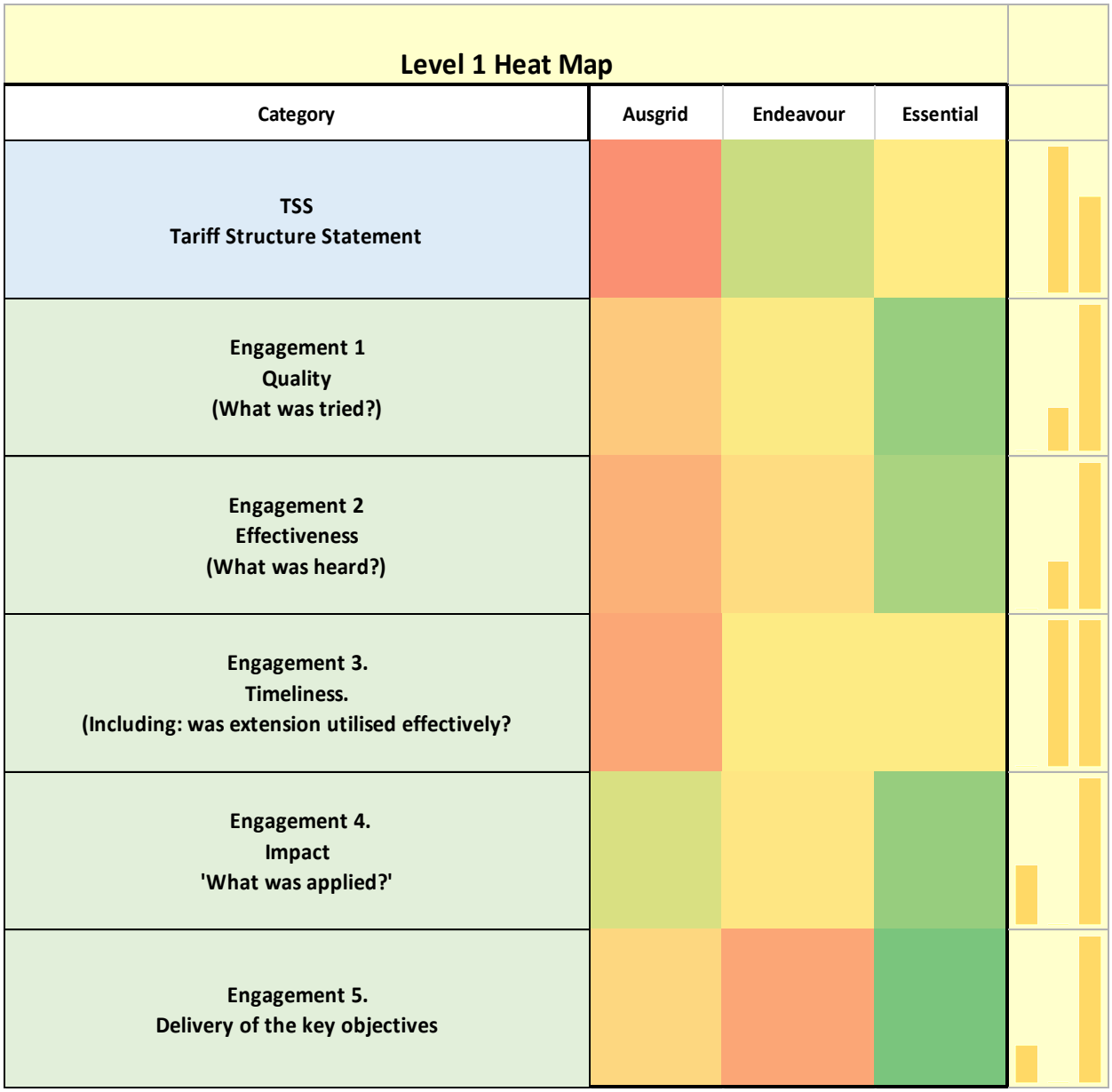


Chart 6, Source:CCP10

These components of the heat map indicate that all three businesses met or exceeded what could be called business as usual for both the range of consumer engagement activities that were attempted and for their efforts in seeking to apply what was heard.

SECTION 3: Opex

Our 'heat map' summary for the operating cost components from the three businesses is given below as chart 7.

LEVEL 2 Heat Map				
Long Term Interest of Consumers		Level 2 weighted scores		
Level 1	**Level 2**	**AUG Ausgrid**	**END Endeavour**	**ESS Essential**
LTIC 2 Business Operations Efficiency	Opex			
	Efficient base year			
	Depreciation			
	Operational costs steps			
	Operational cost trends			
	Operational planning - Vegetation			
	Operational Planning - Asset Maintenance			
	Operational planning - Overheads			
	Efficiency incentive scheme (EBSS)			

Chart 7, Source: CCP10

Our assessment in the heat map reflects our expectations of the businesses – which are based on competitive markets and the principles that consumers should not pay for inefficient costs - and the extent to which the businesses have met those expectations.

While we are generally satisfied with the opex aspects of Essential Energy's proposal, we are not convinced that Ausgrid and Endeavour Energy have lodged opex proposals that are efficient and in the best interests of consumers. Real opex is rising for Ausgrid and Endeavour Energy for the duration of the 2019-24 regulatory period, based on their regulatory proposal, after all three NSW distribution businesses reduced their operating costs during the 2014-19 period. This is shown in figure 6 where the index of opex costs is rising for Endeavour Energy and Ausgrid from 2018 and 2019 respectively. Essential Energy's indexed opex costs decline from 2019, after some increase from 2016-19.

We recognise that all three businesses reduced their operating costs significantly during the 2014-19 period, with this achieved over different timelines. The businesses expect that costs in 2017/18 will match the efficient level of costs for the year in the original 2014-19 determination. Together these factors may suggest costs could be accepted as efficient, but this needs to be tested and demonstrated rather than assumed. More clearly disappointing is the failure of Endeavour Energy and Ausgrid – in marked contrast to Essential Energy – to incorporate ongoing productivity improvements and the opex benefits of the consumer-funded investments in capex and business re-engineering.

The objective should be to set a forecast opex that is a fair but challenging target for a prudent, efficient network where there is a broadly equal chance that the business may

exceed or fall short of the expected efficiency improvements embedded in the forecast. The forecasts should not provide the businesses a 'one-way' bet where consumers pay more than efficient costs in the current period and more again in the next period as the business continues to benefit under the EBSS from the almost inevitable outperformance against a 'soft' opex forecast.

In our view the opex forecasts of Ausgrid and Endeavour Energy are not consistent with efficient operation of the networks in the long-term interests of consumers and cannot be accepted. In contrast, we consider the Essential Energy forecasts can be accepted as they have incorporated ongoing productivity gains that anticipate the benefits of the IT spending and business/process re-engineering proposed.

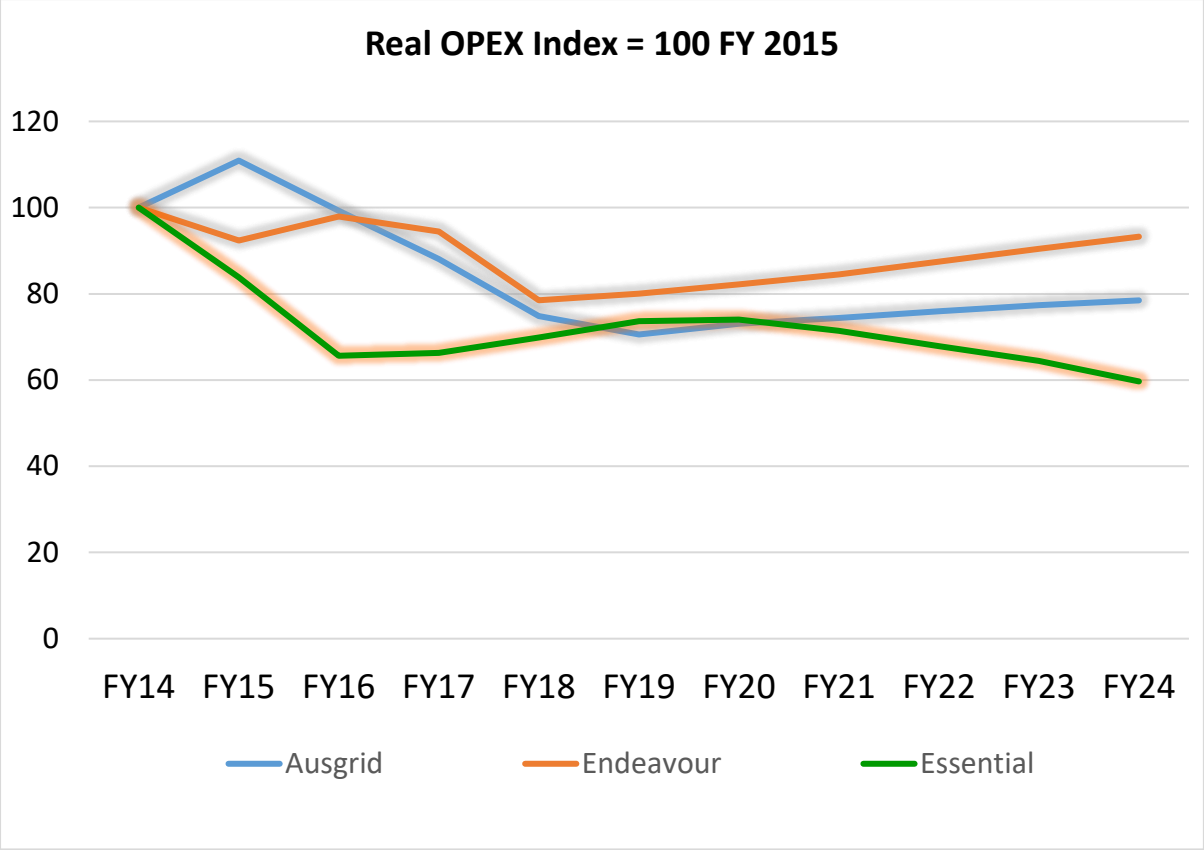


Figure 6, Source: NSW regulatory proposals

Consumer Expectations and the Base-Step-Change Approach

We have assessed the businesses opex proposals against a set of reasonable expectations of regulated businesses based on experience with the sector and observation of outcomes in practice of workably competitive markets:

1. **Consumers should not have to pay for demonstrably inefficient costs.** Competitive markets do not allow businesses to recover inefficient costs over an extended

period. We recognise that it is not easy to determine efficient costs, especially given the variations in operating environments (e.g. urbanisation and customer density) of the networks. Hence, some caution in estimating efficient costs may be required.

2. **Step changes in costs should be rigorously tested before being passed through into prices.** Step changes should be clearly identified, based on fact and beyond the control of the business to be outside the forecast trend in costs. Importantly consumers can reasonably expect step changes can be both positive (adding to costs) and negative (saving costs).

3. **Businesses will continuously strive for, and usually achieve, productivity improvements.** Innovation is a continuous process for even the most efficient businesses, sometimes small (with productivity gains coming from continuous improvement across all aspects of the businesses operations) and sometimes large and contingent on capex and IT spending. At a minimum real wage increases should be offset by improved labour productivity.

4. **Investment in IT and better business processes will achieve efficiency improvements to be passed through to consumers in a timely manner.** Consumers can reasonably expect that having funded the capex required, the opex benefits will be incorporated in the forecast opex.

5. **Major expenditure areas, such as vegetation management or asset maintenance should reflect innovation and a long-term vision for service delivery consistent with consumer expectations.** Asset maintenance is an area where we expect the utility to demonstrate continuing gains through innovation in information and technology, as well as logistics and resource management. In regard to vegetation management we expect that the utilities will both:
    a. look to deliver current service levels more cheaply through better contracting, information systems and coordination with councils, for example and
    b. review and optimise vegetation management strategies in light of both community concerns about the affordability of electricity and the aesthetics of vegetation management.

The AER has adopted a rigorous, transparent 'Base-Step-Change' approach to estimating opex across its reviews and there is a close alignment between this approach to analysing opex and the reasonable expectations of consumers set out above. Expectations (1) and (2) above reflect the assessment of the base level of expenditures and step changes while expectations (3)-(5) are relevant to the assessment of the trend rate of change which the AER decomposes into the trend productivity improvement, unit costs trends and the impact of output growth on costs.

Base Expenditure

Under the base-step-trend approach the AER needs to determine whether the base level of expenditures are inefficient. This was a contentious element of the 2014-19 determination where the AER determined that base year expenditures of Ausgrid and Essential Energy were substantially inefficient and proposed large reductions in costs based on catch-up efficiency. This decision was successfully appealed and remitted for redetermination.

Factors that would support an acceptance that the base level of expenditures in 2017/18 is not clearly inefficient are that:

1. all three businesses reduced their operating costs significantly during the 2014-19 period, with this achieved over different timelines,
2. the businesses expect that costs in 2017/18 will match the efficient level of costs for the year in the original 2014-19 determination, and
3. the strong incentives for the businesses to reduce costs, together with the reduction achieved may provide greater confidence that the revealed costs in 2017/18 than the base year expenditures for the 2014-19 determination.

However, there is an obligation on the AER to carefully review and test the base year expenditures to determine if they can be accepted as efficient. Further data and development of the benchmarking models, together with the concordance of the 2017/18 expenditures with the forecast from the 2013 model may provide greater faith in the AER's benchmarking models. This may encourage the AER to consider:

3. ***Should the efficiency frontier be moving on a regular basis, to reflect improvements in efficiency at the frontier? This shift would be evident in benchmarking reports, to reflect an expectation of dynamic improvement in efficiency rather than having a static frontier.***
4. ***Should the 'efficiency band' of 75% - 100% of the efficiency frontier be narrowed over time to also reflect expectations of dynamic efficiency and increasing confidence in the benchmarking as the data series expands?***

However, the assessment of the efficiency of the base year expenditures will require a consideration of a broad range of information rather than relying too heavily on the benchmarking model.

Step Changes

Under the AER's approach, step changes are changes in "costs due to changes in regulatory obligations and the external operating environment beyond the NSP's control."[1] Importantly, the AER notes that 'normal' creep in regulatory requirements will be captured in the trend productivity estimate. Hence, it has rightly imposed a high standard of proof on

[1] AER Explanatory Statement, Expenditure Forecasting Assessment Guideline, Nov 2013, p15

the requirements for inclusion of step changes that the CCP and other stakeholders have supported.[2]

The Ausgrid and Endeavour networks have mentioned a number of 'step changes' in costs as a reason for opex not reducing in real terms, which is why they claim it would be wrong to assume productivity changes, rather than including the step changes as step changes separate from trend efficiency. This matters because:

- CCP10 considers it is inconsistent with the base-step-change approach and offsetting step changes may be subject to less rigorous review and
- offsetting 'step changes' are just as important as claimed step changes. Ultimately if accepted these changes have to be funded by customers whether they are separate explicit step changes or reasons for not including a productivity adjustment.

In contrast, Essential Energy has included negative explicit step changes and embedded a number of reductions in costs flowing from their efforts to invest in improved technology and processes in their forecast productivity improvements.

The step changes discussed by the network businesses are shown in chart 8 below

NSP	**Claimed**		**Referenced**	
	Item	**$m**	**Item**	**$m**
AGD	DM programs	+24	Land Tax	+30
	Price research	+3	Customer Costs	+10
			IT (security)	+8
END	None		Increased ICT costs (changed to licence requirements contingent on ownership)	+10?
			Additional costs due to ring-fencing	
			Additional costs due to unspecified IPART requirements	
			Power of Choice	
			Education on tariff reform	
			Additional costs due to RIT-D	
ESS	Changed treatment of leases	-24	Strategic initiatives (improved capex and asset management strategies, works planning, veg	-22

[2] AER Explanatory Statement, Expenditure Forecasting Assessment Guideline, Nov 2013, pp97-98

			management, outage response, utilisation of field staff, procurement and support functions)	

Chart 8, Source: NSW regulatory proposals 2019-24

Ausgrid

The step changes claimed by Ausgrid require close examination. At this stage we consider that AER should reject the claimed step change for price research. A detailed justification for the inclusion of price research as a step change is included but is questionable. The changes pre-date this review, are not substantial, and are arguably embedded in the costs of the other DNSPs that serve as the efficient benchmarks and have already embarked on a program of price reform in advance of Ausgrid

It is doubtful that the step changes identified, but not claimed, would meet the requirements for a step change; i.e. they would not warrant treatment as new, significant, exogenously imposed costs that are beyond the purview of standard business operating costs.

Endeavour Energy

In discussing step changes Endeavour Energy notes that "The impact of recent regulatory and compliance changes and the continuous review of efficient service delivery alternatives may result in Endeavour Energy electing to nominate these additional costs as step changes."[3] The meaning of this seems uncertain but appears to imply that Endeavour may seek to significantly change its approach to step changes during the course of the review. ***However, the costs listed clearly do not meet the requirements for acceptance as step changes***. They are vaguely specified and costed without supporting information. While Endeavour has stated that it is "absorbing all step changes as a productivity improvement" (Proposal, p176) this equates to only 0.7% of opex over 2019-24.

Essential

Essential Energy have included leases as a negative step change, while the other businesses have not. There should not be an expectation that step changes only add to costs and ***Essential Energy's inclusion of a negative step change is welcomed***. In contrast, all of the step changes identified by Ausgrid and Essential are positive in the sense that cost more for consumers. We are not satisfied that this should be the case.

Trend Costs

Under the AER's approach trend changes in costs are decomposed into trends changes in costs due to:

1. expected changes in unit costs,

[3] END, Attachment 0.07 Expenditure Forecasting Methodology statement, p24

2. trend changes in productivity, and
3. the impact of expected output growth.

We have considered each of these components, together with the trends in overheads below.

Increase in wages and salaries

While the businesses have assumed unit costs for non-labour costs will increase in line with CPI, each has assumed significant increases in wages and salaries – see chart 9 and figure 7 below.

Assumed Increases in Wages and Salaries (%)						
	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Ausgrid	0.95%	0.88%	1.37%	1.74%	1.73%	1.33%
Endeavour	0.90%	1.55%	2.04%	2.41%	2.40%	2.00%
Essential	1.20%	1.00%	1.00%	1.10%	1.20%	1.00%

Chart 9, Source: NSW regulatory proposals 2019-24

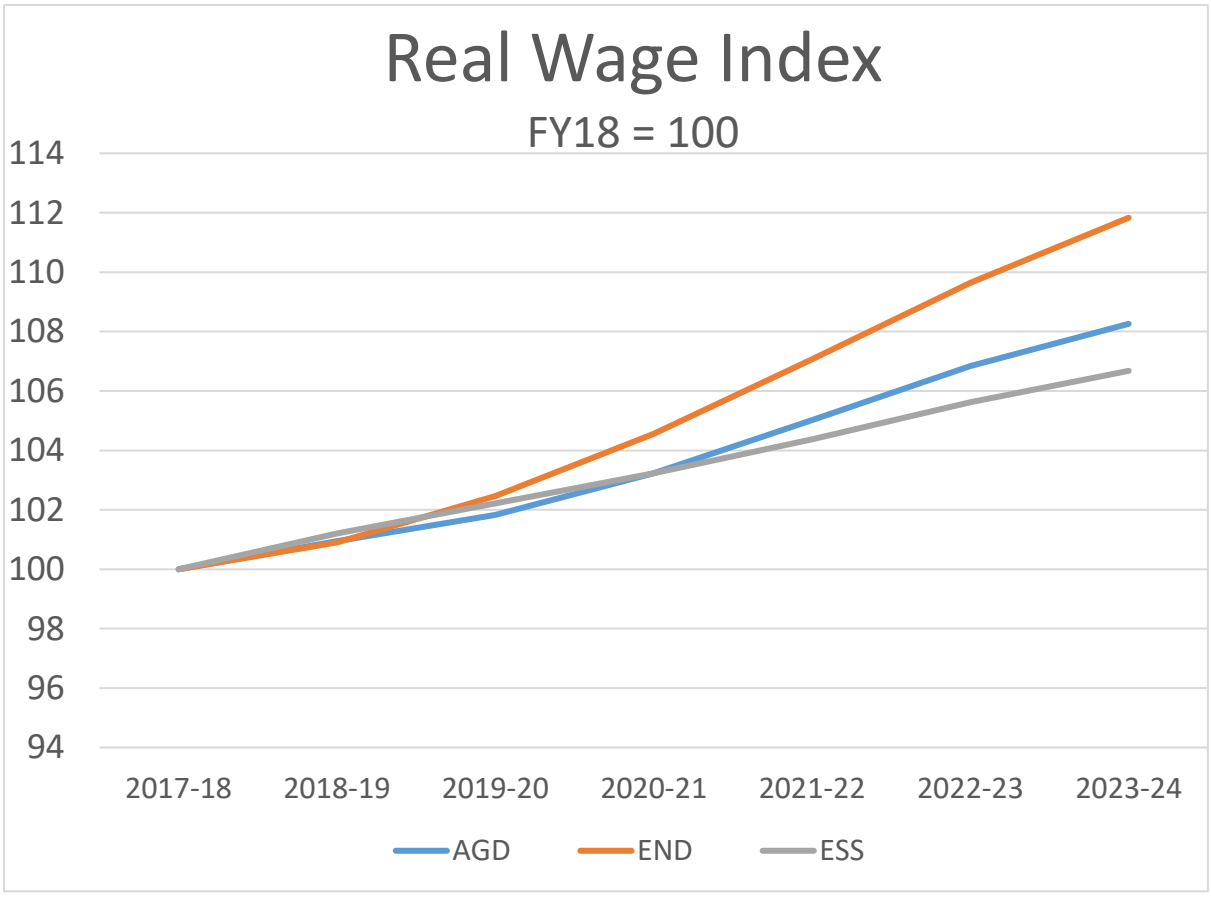


Figure 7, Source: NSW regulatory proposals 2019-24

Endeavour Energy is projecting a significantly higher rate of growth in real wages than the other businesses - a cumulative increase of 12% over the 6 years to 2023-24 real wages and salaries compared to 8% and 7% for Ausgrid and Essential, respectively. Furthermore, neither Endeavour nor Ausgrid offset rising wages with assumed productivity improvements. Essential Energy however does include productivity improvements so that the increases in real wages and salaries are not putting upward pressure on prices.

There is strong expectation in wage negotiations across the economy that there will be productivity offsets for real wage increases. If Endeavour and Ausgrid were able to achieve this, it would translate into annual productivity improvements of 1.2-0.8% p.a.[4] Based on current opex partial factor productivity estimates these businesses continue to be well-inside the efficiency frontier and, as discussed below, this should be the starting point for the minimum trend productivity improvement that can be assumed.

Overheads

Chart 10 and Figure 8 show the proportion of opex for standard control services, 2017-24.

	Overhead ratio						
	(proportion of Opex for Standard Control Services)						
	2017-18	**2018-19**	**2019-20**	**2020-21**	**2021-22**	**2022-23**	**2023-24**
Ausgrid	0.43	0.43	0.44	0.44	0.44	0.44	0.44
Endeavour	0.56	0.56	0.56	0.56	0.56	0.56	0.56
Essential	0.41	0.38	0.38	0.37	0.36	0.35	0.35

Chart 10, Source: NSW regulatory proposals 2019-24.

[4] Based on labour cost being 60% of opex

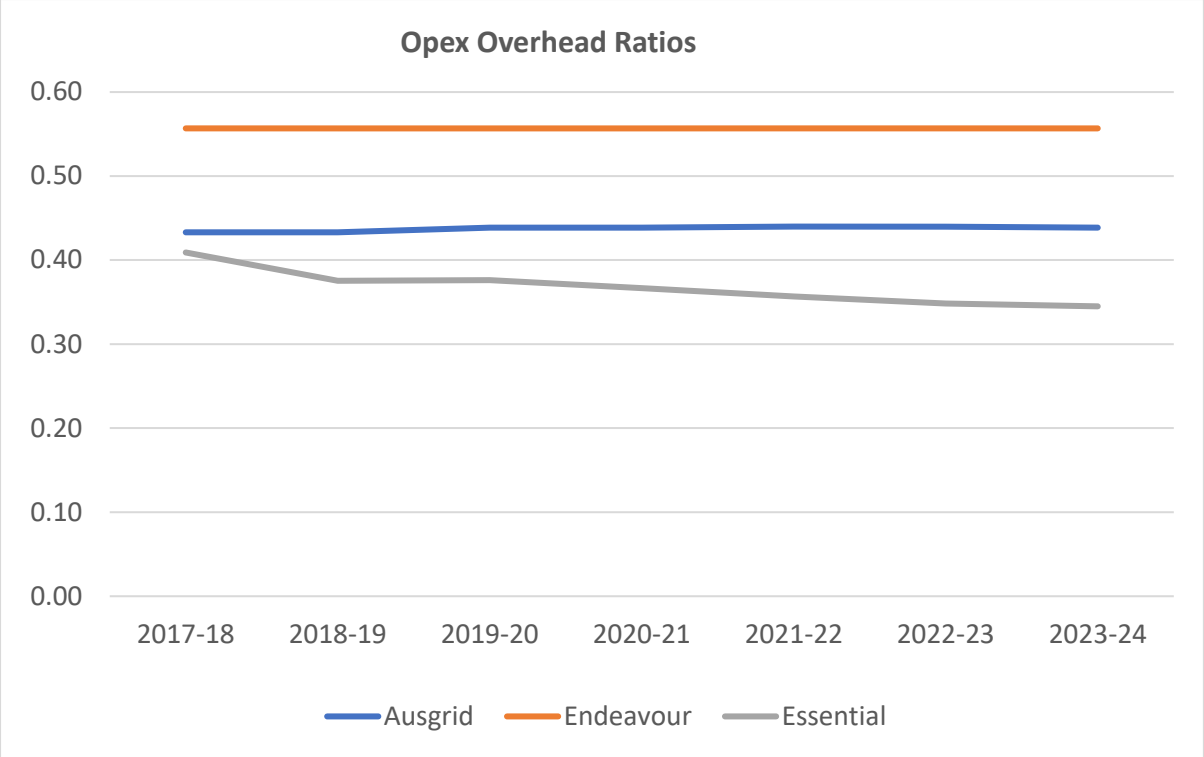


Figure 8, Source: NSW regulatory proposals 2019-24

These figures show that overheads are a very large proportion of opex, particularly for Endeavour Energy. We suggest that it is reasonable for consumers to expect reductions in overheads over time because of expectations of ongoing efficiency improvements and the business objectives of improving affordability or maintaining service standards.

Trend Productivity

The basis of incentive regulation is "CPI-x" which embeds the expectation that regulated businesses will continually seek to improve their efficiency, including for operating costs. This is one of the factors that led the AER to benchmark Australian network businesses, starting in 2015, which coincided with the release of the draft decisions for ActewAGL and the 3 NSW businesses. This benchmarking report identified the 'efficiency frontier' for Australian networks and reported on the proximity to the frontier of the thirteen electricity distribution businesses in the NEM. A business operating within the range of 75% of the frontier, or better, was deemed to be 'efficient.' The benchmarking report used four different approaches to measure efficiency, which all gave similar results.

The benchmarking report has been issued annually since 2015. Figure 9 is taken from the most recent report, published in 2017 and shows Opex Multilateral Partial Factor Productivity (MPFP) for the decade to 2016.

Opex Multilateral Partial Factor Productivity (MPFP)

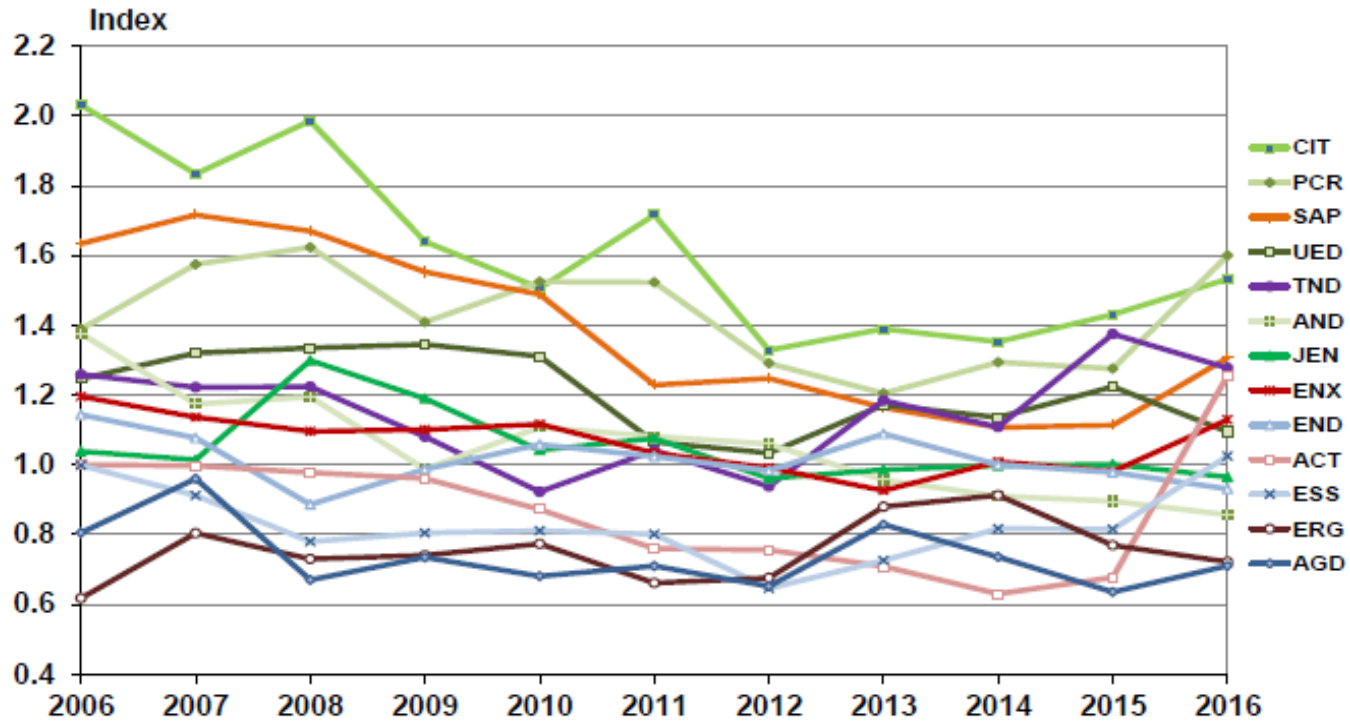


Figure 9, Source: Economic Benchmarking Results for the Australian Energy Regulator's 2017 DNSP Benchmarking Report

The figure shows that the 3 NSW businesses along with Ergon Energy from Queensland and ActewAGL have been the poorer performing businesses over this decade. Considering the NSW businesses only, and considering the years from the current 2014-19 regulatory period, Essential Energy has improved its Opex MPFP, while Ausgrid and Endeavour Energy have deteriorated, albeit with an improvement for Ausgrid from 2015 to 2016.

In discussions with the businesses, CCP10 has highlighted the importance to consumers of improved opex productivity for 2019-24. Ausgrid says that it is decreasing opex by $100m per year in 2019-24, with this productivity being 'front loaded,' from a price path perspective into the initial drop in network charges for year to apply in year 1. We would note that the $100m 'reduction' refers to the difference between average opex in 2014-19 compared to the average opex and 2019-24 and simply reflects reductions in costs already achieved not expectations of future reductions in costs. The AER's benchmarking report shows that for 2016, the most recent year for which data is available, Ausgrid is the poorest performing network business. Endeavour Energy plans for zero productivity improvement over 2019-24 while Essential Energy is proposing opex productivity improvements, though these are not evident in their price path, being masked by increases in their regulatory asset base (RAB) (see section 4 below).

CCP10 strongly encourages the AER to consider whether, particularly given the current performance of the NSW businesses, Ausgrid and Endeavour Energy's assumptions of zero trend productivity improvement are in the best interests of consumers. We consider that

consumers should expect ongoing improvements in productivity and that this is consistent with the pressures on businesses in competitive markets to continuously search for productivity improvements. A zero productivity assumption does not meet the basic common sense test: could a CFO credibly present a budget to a company's Board of a budget that did not factor in ongoing productivity improvements? In our experience the answer is clearly: no. And if the assumption fails that test how can the AER credibly defend the legitimacy of the outcomes to consumers.

Aside from the fundamental high-level perspective CCP10 believes a trend productivity assumption can be supported by:

4. ***a closer examination of the data available to the AER on productivity trends,***
5. ***reference to broader economy-wide trends, and***
6. ***inclusion of the expectation that businesses will seek productivity offsets in negotiating real wage increases.***

Two questions that the AER should consider in reviewing the evidence on trend productivity improvement are:

1. the treatment of redundancy costs and
2. the period of analysis.

In simple terms improving productivity means producing more outputs with fewer real resources. Redundancy payments are one-off financial payments to more quickly reduce costs, and may distort the underlying productivity trend (i.e. the extent to which more is being done with less). If redundancy payments are excluded from the calculation of the Opex Partial Factor Productivity (PFP) the estimated productivity change increases by 0.68% (from -0.9 to -0.22% p.a.) for the period from 2006-2016 and 1.37% (from 2.97% to 4.34%) for 2012-2016.

The other key factor is the period of analysis. For opex, the trend post-2012 is very different to the trend from 2006. The longer period is heavily distorted by the changes in reliability standards and the period since 2012, which shows a significant improvement in opex PFP is more relevant.

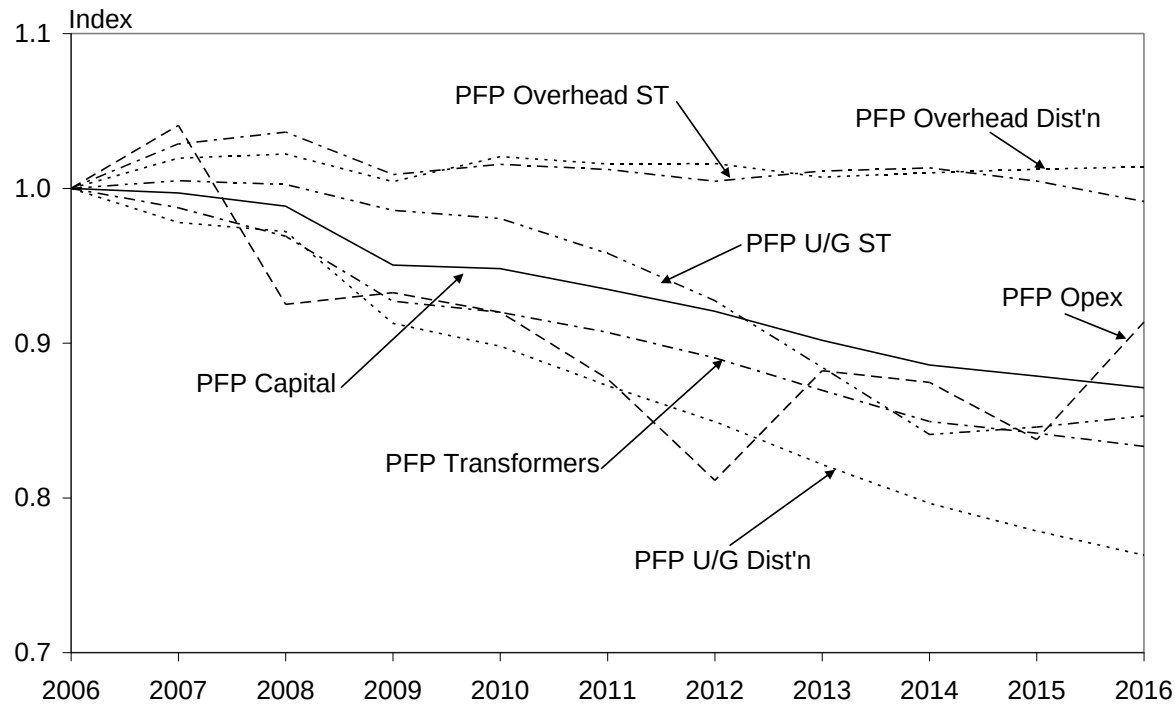


Figure 10, Source: Economic Benchmarking Results for the Australian Energy Regulator's 2017 DNSP Benchmarking Report, p7

As Economic Insights commented in its 2017 report for the AER:

> "Opex partial productivity declined the most through to 2012 but has generally improved since as opex use has trended down from its 2012 peak. In 2012 opex partial productivity was 19 per cent below its 2006 level but by 2016 had recovered somewhat to be 9 per cent below its 2006 level….
>
> The most significant difference for the period up to 2012, however, relates to the contribution of opex to average annual TFP change. Opex increased rapidly from 2006 to 2012 and peaked in 2012. Its average annual growth rate over this period was a very high 5 per cent. This very high growth rate in opex likely reflects responses to meet new standards requirements, with many of those responses arguably being suboptimal, responses to changed conditions following the 2009 Victorian bushfires and lack of cost control from constraints imposed by government ownership. A detailed discussion of these issues can be found in AER (2015). This very high growth rate in the input with the highest share in total inputs made a very large negative contribution of –1.9 percentage points to average annual TFP change over this period." (EI 2017, p11).

Ausgrid also commented in their submission that "Mandated licence conditions, which increased reliability standards and rising peak demand led to an increase in our operating costs base to support the required rapid increase in capex from 2007 to 2012." (Ausgrid submission, p118).

These standards-driven costs were large and well beyond the 'normal' regulatory creep that AER acknowledges would be included in the trend productivity estimate. If similar changes were proposed now they would clearly fall into the category of step changes and included in the cost forecasts separately from the trend productivity adjustments. Hence, it is essential

for the consistency of the base-step-trend approach that the impact of these past major standard changes be included from the estimate of trend productivity. The simplest, most reliable means of doing this is to exclude the period 2006-2012 from the analysis – as the table below in chart 11 does.

Average annual distribution industry TFP and opex PFP change including and excluding redundancy payments: 2006–2016, 2006–2012 and 2012–2016

Year	*2006 to 2016*	*2006 to 2012*	*2012 to 2016*
TFP change including redundancy payments	–1.22%	–2.16%	0.19%
TFP change excluding redundancy payments	–0.99%	–2.08%	0.64%
Opex PFP change including redundancy payments	–0.90%	–3.48%	2.97%
Opex PFP change excluding redundancy payments	–0.22%	–3.26%	4.34%

Chart 11, Source: Economic Insights, 2017, p13

While the most relevant estimate of the trend productivity growth is 4.34% (i.e. 2012-16, excluding redundancy costs) we recognise that because this is an average for the sector it includes catch-up efficiency gains by poorer performing DNSPs. Hence it may overstate achievable gains in the future. To identify this possible bias we examined the opex PFP performance from 2012-2016 of the four businesses – Citipower, Powercor, SAPN and UE – that had the highest opex PFP in the 2013 benchmarking report. The average opex PFP improvement for these businesses since 2012 was 2.9%. This analysis suggests that an assumed trend productivity for the next regulatory period of 2-3% would be conservative.

However, we consider that the AER should also have regard to broader measures of labour productivity in addition to the Opex PFP estimates discussed above. This has the effect of reducing the estimate.

Labour is the largest component of opex and source of potential productivity improvements, although the potential for improving non-labour productivity should not be ignored. ABS data on quality adjusted labour productivity and forecasts of utility labour productivity by Deloitte Access Economics suggest a range for labour productivity improvement of 1.0-2.0% p.a. and 1.1-1.7% p.a., respectively. Even if there were no productivity improvements in the use of other inputs this would translate to an overall productivity improvements of 0.6% to 1.2% p.a..

As noted above at a minimum it is reasonable to expect businesses to seek productivity improvements to offset the proposed real increase in wages. This would support a total opex productivity improvement or 0.8-1.2% p.a.. However, we consider that businesses should also be expected to achieve productivity improvements in the use of non-labour inputs.

In summary we consider that the evidence supports a MINIMUM opex productivity adjustment of 1.5-2.0% p.a.. In addition to this, given the current relative productivity of

the NSW businesses, a provision for some catch-up efficiency should be included in the annual productivity allowance if the base opex is accepted as efficient.

Incentive schemes

EBSS

Assessment of EBSS is linked to assessment of proposed cost path and under incentive regulation:

- The regulator sets a 'tough but fair' price path
- The utility has incentive to improve efficiency
- Some businesses achieve better, some worse than target

CCP10 is strongly of the opinion that the expected value of EBSS should be zero and if not, positive expected value should be built into cash flows.

We emphasise that the EBSS was intended to equalise incentives over time and not to create bonuses for utilities.

We are concerned that "soft" assumptions on productivity mean that the expected value for EBSS is positive, not zero and consequently inconsistent with the long term interests of consumers

CESS

CESS is well established and is being applied by the NSW businesses.

An ongoing issue is the treatment of projects that have been deferred. The CESS provides for exclusion of deferrals. If a project is deferred to the next period the NSP picks up a CESS benefit and funding for the capex in the next period, but we understand that this has been problematic to apply. CCP10 is not sure about the extent of 'deferrals'.

STIPIS

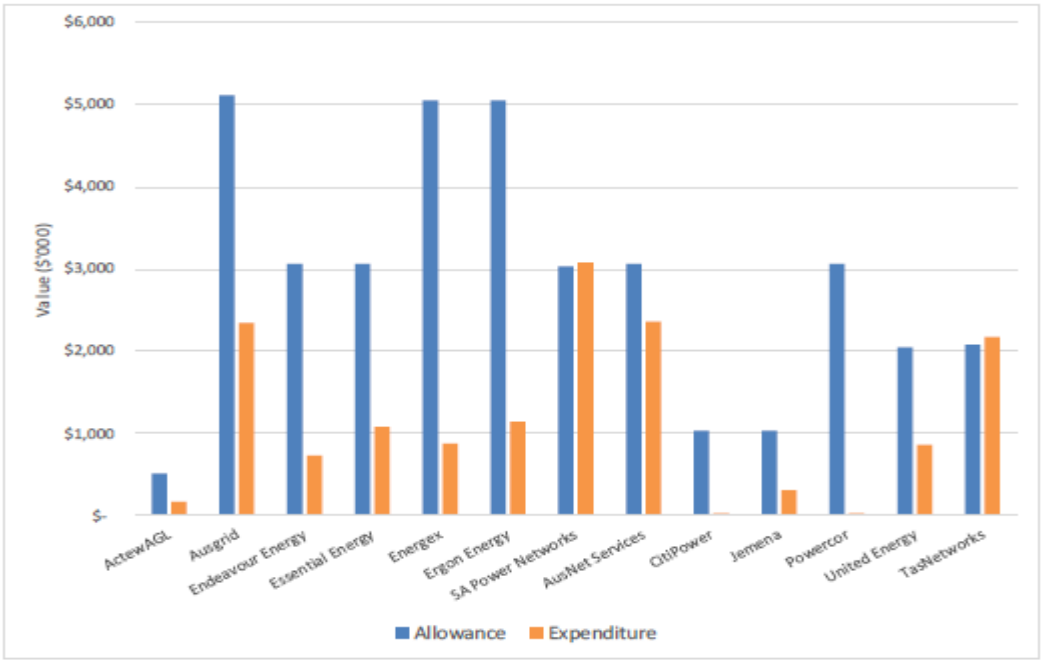
The Framework and Approach paper set out a number of the STIPIS parameters and these have been applied by the businesses in line with the F&A. We do not consider that much attention needs to be given to STIPIS for these proposals. We support the stronger STIPIS option that is a 'strength' of 5% being applied.

DMIA

CCP10 regards the demand management incentive allowance as increasingly important as networks need to be better applying DER solutions and integrating localise renewable generation into their networks, as compared with past experience where nearly all generation entered the transmission network.

Figure 11 shows recent DMIA regulated allowances and actual expenditures for the NEM DNSP's, most have dramatically underspent their allowances.

Figure 1 DMIA – comparison of regulatory period allowance vs expenditure to date



Source: AER analysis and DMIA reports submitted by DNSPs

Figure 11, source: AER analysis and DMIA reports from DNSP's

For NSW distribution businesses, the proportion of DMIA underspent is significant as shown in chart 12. Ausgrid has an active demand management innovation program and has a much larger regulated allowance than the other NSW businesses, however they have spent a little less than half of their allowance.

Table 1 ACT and NSW DNSPs DMIA expenditure for the 2014–15 to 2018–19 regulatory control period ($'000 nominal)

DNSP	DMIA approved for 2014–15	DMIA approved for 2015–16	DMIA approved for 2016-17	Total DMIA allowance for the period	Total DMIA approved to date	DMIA remaining for the period	Proportion of approved DMIA spent
ActewAGL	72.8	37.6	55.9	511.3	166.3	345.0	33%
Ausgrid	1 363.0	599.7	373.2	5 112.8	2 335.9	2 776.9	46%
Endeavour Energy	378.8	30.6	318.9	3 067.7	728.3	2 339.4	24%
Essential Energy	502.7	266.8	301.4	3 067.7	1 070.9	1 996.8	35%
TOTAL	**2 317.3**	**934.7**	**1 049.4**	**11 759.5**	**4 301.4**	**7 458.1**	**37%**

Source: AER analysis and DMIA reports submitted by DNSPs. Numbers may not add up due to rounding.

Chart 12, Source: AER analysis and DMIA reports from DNSP's

The NSW DNSP allowances for DMIA for 2019-24 need to be carefully considered against recent actual expenditure.

Considering incentive schemes in combination, CCP10 encourages the AER to review all incentive schemes cohesively to make sure that businesses (including those at the efficiency frontier) are incentivised to save costs and actively pursue non-network solutions.

WACC

Essential Energy has clearly used the current (2013) rate of return guideline approach and parameter values and has accepted application of the (pending) 2018 guideline. Consumer groups welcome this.

Endeavour has used the current approach and parameter values while arguing against application of the 2018 guideline.

Ausgrid's position is less clear using the current approach and parameter values but reserving the right to challenge. The approach that they will take regarding the 2018 guideline is unclear. A consultant's report on aspects of rate of return was included in Ausgrid's regulatory proposal. To the best of our knowledge, this was not the topic of any engagement with consumer or stakeholder interests.

Capital Contributions

Ausgrid and Essential Energy are not proposing changes, broadly accepting the current policy.

Endeavour Energy however, has proposed change in their approach, shifting costs from new customers to existing customers, to our observation. This topic has been hotly discussed and we recognise that there are mixed views about the approach that Endeavour Energy has taken. It is clear that they are an outlier compared to other network businesses and their approach to capital contributions. This does not necessarily make their position wrong, but our preliminary view is that their approach is not an improvement and is inconsistent with a causer pays principle. The change in their position also had no customer support before or after the introduction of the change.

We consider causer pays to be consistent with efficiency and efficient development and consider it to be equitable and supported by communities, in general. The idea that new customers contribute according to costs caused seems well accepted. CCP 10 considers there to be a high level of uncertainty about who will benefit from the proposed change: Homebuyers? Developers? Sellers of undeveloped land? It is clear that the broader customer base does not support the change, other than developers who we understand were a primary party to discussions with Endeavour Energy. Capital contributions policies are discussed further in section 4 below.

SECTION 4: CAPEX

1. Introduction

CCP10 recognises the critical impact that capital expenditure (capex) has on the performance and cost of electricity supply to consumers for the long-term. The risk of stranded assets and overcapitalisation is high given the likely change to energy use over the life of any new network asset. The role of Distributed Energy Resources (DER), changes to electricity pricing and the trend towards local ownership and accountability for energy make it imperative that investment plans are well considered, staged and based on real customer requirements.

Consequently, we have taken a significant interest in considering each of the distributor's capital expenditure plans, asking:

- has the distributor taken all reasonable steps to avoid long-term, high cost network investment whilst still meeting valid customer requirements?
- is the asset custodian extracting as much benefit as possible from existing assets, including distribution equipment, information technology and support infrastructure?
- is the distributor continuing to seek efficiencies in the design, delivery and total life cost of any investment?

In reviewing the proposals from the three distributors, CCP10 believes there are significant opportunities for the AER to consider reductions to the amount of capital investment proposed, in particular those for Endeavour Energy and Ausgrid. These savings relate to opportunities to modify their approach to supply risk presented by previous investments, taking a more critical approach to the timing, scope, design and cost of new developments, an aggressive development of new technologies and demand management, and a critical review of the benefits and alternative approaches to IT investment.

2. ACCC report – Restoring Energy Affordability

The ACCC released its report: "Restoring electricity affordability and Australia's competitive advantage[5]" on 11th July 2018 dealing with energy affordability for consumers in Australia, they considered. The ACCC concluded that network costs are one of the factors that have contributed to high electricity prices across Australia.

Figure 12 below summarises the growth in the RAB by jurisdiction for the decade 2006 to 2016. It is clear that New South Wales and the ACT - predominantly New South Wales - have seen significant growth in the RAB, albeit with some slowing of the growth over the final years of the current, 2014-19 regulatory period.

The rate of rise in asset values are is due to the impact of increasing consumer demand in the residential and commercial sector, and significantly the adoption of conservative network security standards in NSW and Queensland. The moderating of the rate of investment in recent years is clear, thanks to both the relaxation of those standards and the adoption of energy efficiency.

[5] https://www.accc.gov.au/publications/restoring-electricity-affordability-australias-competitive-advantage

CCP10 believes that the increase in assets, well above the rate of demand growth and customer numbers, presents the opportunity for a 'dividend' to be returned to consumers from the inherent capacity and reliability that comes from that rise in investment.

Figure D: Regulatory asset base from 2006 to 2017, by NEM region, real $2016–17

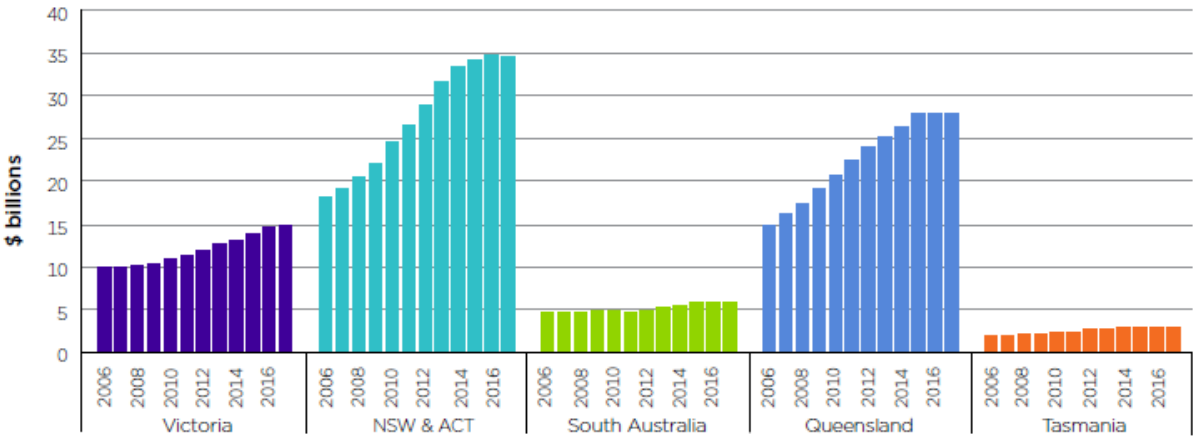


Figure 12, Source: ACCC restoring electricity affordability and Australia's competitive advantage

A key table from the ACCC report is table A, copied below as chart 13, which shows achievable average savings for residential customers from now to 2020-21. It is evident that the potential savings contribution changes considerably between elements of the price stack represented in an electricity bill, between jurisdictions.

Table A: Achievable average annual residential bill savings by 2020–21

		Achievable savings ($ per annum)						
Region	2017–18 Bill	Networks	Wholesale	Enviro	Retail	Reduction	2020–21 Bill	% Reduction
Victoria	1457	39	192	34	26	291	1166	20
NSW	1697	174	155	43	37	409	1288	24
South east Queensland	1703	147	192	18	62	419	1284	25
South Australia	1727	13	227	89	42	371	1356	21
Tasmania	1979	113	226	75	–	414	1490	21

Chart 13, Source: ACCC restoring electricity affordability and Australia's competitive advantage

We have graphed the data from this table to show the average household achievable energy savings, by bill stack element as a percentage of the total savings for that jurisdiction. The

New South Wales percentages show the potential savings for each element as a percentage of the total reduction identified of $409.

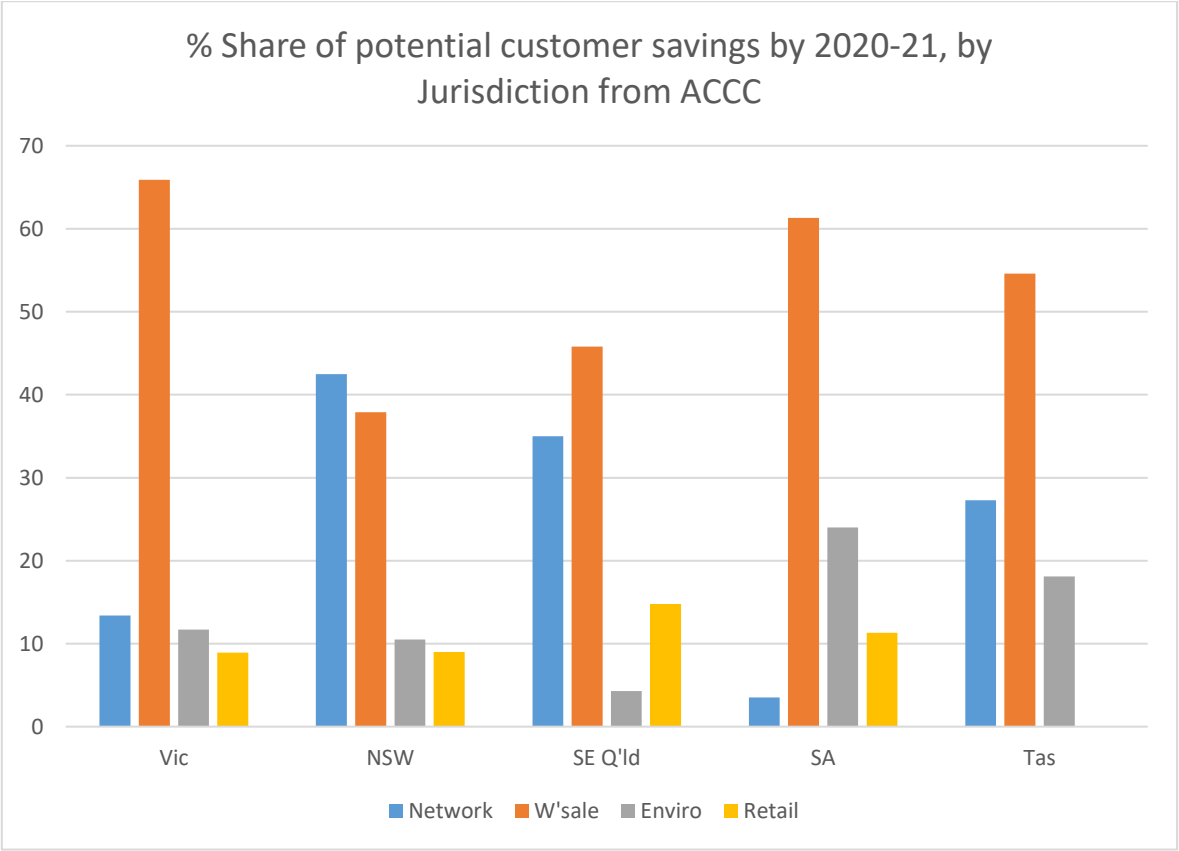


Figure 13, Source: data from Grattan Institute

Figure 13 shows that for New South Wales, unlike any other jurisdiction, the largest area identified for potential savings is from reduced network costs. The potential network cost savings for New South Wales are significantly higher than for Victoria and South Australia.

The Grattan Institute has also prepared a major report on Australia's energy markets[6] and again they report that excess growth in electricity networks has been greatest in New South Wales, with their estimates showing that Ausgrid and Essential Energy have had the highest levels of excess growth, while Endeavour Energy's growth has been more modest, using Grattan's estimates.

This recent evidence highlights concerns from consumers in New South Wales about high network costs for New South Wales electricity distribution businesses. The concerns with the proposed increases were identified by consumers, CCP1 and the AER in response to the NSW network proposals for 2014-19. We recognise that significant effort has been made during the current regulatory period by the New South Wales businesses to reduce costs, spurred by the AER final decision for 2014-19.

[6] *Down to the wire: A sustainable electricity network for Australia'* 25 March 2018: https://grattan.edu.au/report/down-to-the-wire/

These recent reports by the ACCC and the Grattan Institute, however, suggest that there is still merit in carefully considering ongoing costs for the New South Wales businesses and particularly their capex costs. Consequently CCP10 has given close attention to the capex proposals from the businesses and our views are summarised in the rest of this section.

Table 7.1 Grattan estimates of excess growth in electricity networks[304]

DISTRIBUTION			
Network	**State**	**Excess growth estimate $m**	**Excess growth estimate as percentage of RAB growth**
ActewAGL/Evoenergy	ACT	–	
Jemena	Victoria	38	8%
TasNetworks	Tasmania	235	55%
CitiPower	Victoria	52	6%
Essential Energy	NSW	3 304	72%
Energex	Queensland	1 673–3 935	26% to 61%
Ausgrid	NSW	5 442	63%
Ergon Energy	Queensland	2 442	48%
SA Power Networks	South Australia	–	0%
Endeavour Energy	NSW	849	27%
Powercor	Victoria	–	0%
AusNet Services	Victoria	–	0%
United Energy	Victoria	–	0%

Chart 14, Source: Grattan Institute

3. Key areas of interest in assessing capital investment plans

In considering the proposed level of capital expenditure by the NSW distributors, CCP10 included several overarching principles and expectations that reflect both the long-term interests of electricity customers and the respect and transparency of the community engagement required of the network businesses.

These principles are:

A. A demonstrated commitment to a reduction in the RAB

This requires distributors to meaningfully and transparently consider all options and innovations that avoid adding to the RAB.

CCP10 acknowledges that over the current regulatory period, in general, network performance has improved because of increased rates of investment. Looking to the future, distributors must respect the pressure on energy costs to customers and the fact that energy use is likely to change significantly over the life of any new network asset. Consideration of the risk of asset stranding is required.

CCP10 expects distributors to demonstrate active engagement with developers, technology providers, retailers and consumers with a clear commitment to not only carry out trials but reflect a genuine and intentional focus on demand management, new technologies,

customer engagement and non-wires solutions in their planning for growth and asset replacement.

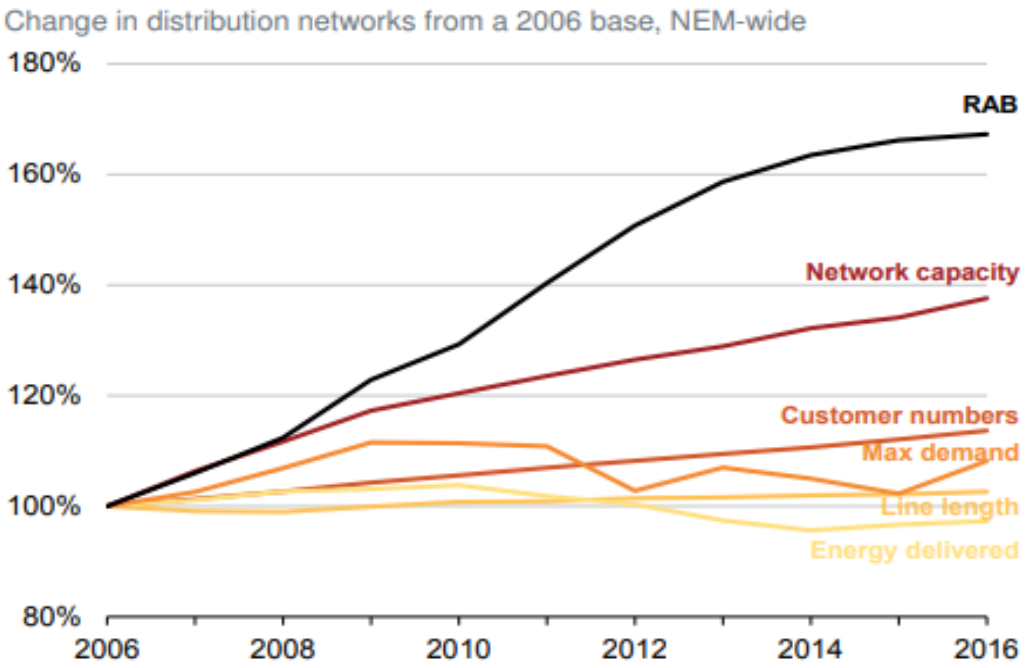


Figure 14, Source: Grattan Institute

B. Extract benefits from the significant capital investments of past periods

We believe that this significant previous investment in capacity and security, in concert with a relaxation of the prescriptive network security standards, should continue to provide benefits to consumers. Factors such as new energy tariffs focussed on mitigating energy demand, state energy efficiency initiatives and stable after-diversity maximum demand should support this approach.

Past investments in network capacity and security are expected to present opportunities for better risk mitigation leading to more appropriate equipment replacement decisions and opportunities to meet demand growth without significant network investment, especially in established suburbs. The proportion of younger plant and equipment further mitigates replacement capital requirements.

C. Ensure investments in non-network assets, in particular Information Technology, provide demonstrable benefit to consumers.

We note the continued high levels of investment in information technology assets. In some cases, investment has increased significantly in the latter part of the 2014-19 period or is

proposed to increase in the 2019-24 plans. In considering the level of investment in non-network assets, it is critical that a clear return on investment is evident for consumers.

This approach is in part driven by the awareness that non-network investment, in particular Information Technology and vehicles, are depreciated more quickly than network assets and therefore have a more immediate and direct impact on customer prices.

In addition, our expectation is that distributors fairly consider the impact of not carrying out the investment as planned. The counter-factual position should reasonably consider sensitivity analysis and performance impacts, as well as innovative alternative solutions. In general, little evidence of balanced and transparent IT investment planning is evident in the network business's proposals.

D. Ensure investment leading to improved or changed performance or services has consumer support.

We note and support the engagement undertaken by the distributors as part of this revenue reset process. This work includes both the Customer Council processes that are part of the businesses' ongoing community engagement framework and the 'deep dive' presentations associated with the reset itself.

Expenditure has a direct impact on the community, across customers who may have either a passive (largely affected by price, reliability and environment, with little direct interaction with the utility) or active (specifically contacting the utility for information or a service) interaction.

CCP10 looks closely at these interactions, especially where the distributors are seeking to change current levels or are providing services that are not consistent or validated with industry norms or reasonable (and often changing) customer expectations.

Whilst engagement on all aspects of investment is necessary, we are particularly looking for evidence that the impact of any planned changes to investments has been taken to the community forums in a balanced and genuine way, with the intent to inform the forum of the need for the change, explain its impact and cost, and seek informed support and validation (or clear views, at least) for the change.

Included in this area is a distributor's Capital Contribution and Connections policy, investments in network reliability change or enhancement of customer service systems. This consideration also applies to investment in operating performance, including planned interruptions processes and vegetation management.

E. Identify under-expenditure in the current period is not efficiently carried forward

Where a utility has underspent its capital allowance in the previous period, evidence is required that the deferral was in fact an efficient decision through considered risk management or innovation, and that the work has not just been delayed and the costs carried over into the current proposal.

F. *Aggressively continue to pursue efficiencies, cost reductions and productivity improvements*

The capital expenditure proposal demonstrates an awareness and respect for the cost of investment on the customer continuously, demonstrating efficiency and productivity growth, reducing unit costs and overheads. These efficiencies and unit cost reductions will of course be subject to labour and material variances discussed elsewhere in this response. In the context of the capital investment however, evidence is sought for:

- changes in design leading to reduced cost (e.g. overhead lines in lieu of underground);
- opportunities for the consolidation of assets;
- use of new technology leading to clear cost reductions or expenditure deferral;
- network performance agreements with customers enhancing non-network options;
- a staged approach to asset replacement;
- a reduction in capitalised overheads; and
- per-unit efficiencies for assets such as vehicles, buildings and mobile technology.

Endeavour Energy

3.1 Overview of Endeavour Energy

Endeavour Energy is responsible for the electricity supply to almost 1 million electricity customers in the west and south of Sydney, with two quite different investment characteristics.

Development takes two distinct forms. On the one hand, in established areas growth largely takes the form of point loads embedded within the existing network, including some increased housing density from rezoning. The increase in supply security standards around 2010 – 12 drove significant investment of close to $2B in increased network capacity and asset replacement.

The investment priorities in these existing 'brownfield' areas are similar in magnitude, timing and nature as that seen in other largely urban distribution utilities such as Energex, Jemena and United Energy.

Secondly, Endeavour Energy is also responsible for the electricity supply to fast growing urban developments, with around 110,000 new connections expected over the next 5 years due to new residential, commercial and industrial subdivisions being rapidly developed from rural land.

Along with residential and commercial growth along the Glenfield – Macarthur rail corridor and around Lake Illawarra, Endeavour Energy notes the proposed development of the

Badgerys Creek and Western Sydney Priority Growth area as having a significant requirement for the development of new network capability.

We recognise this rapid growth is somewhat unparalleled when compared with other distributors in Australia; not because such growth is unlike that in Melbourne or greater Brisbane, but due to the fact that the growth and new development forms a materially large proportion of Endeavour's investment commitment and workload.

Endeavour has noted the remarkable increase in energy peak demand as the temperature rises. The distributor recorded record peak demand in the 2016/17 summer, attributed to Western Sydney enduring heatwaves during the hottest summer on record.

Other factors relevant to the Endeavour Energy area are:

- a moderate penetration of rooftop solar generation (12%);
- exposure to significant bushfire risk, especially in the Blue Mountains;
- a balance of overhead and underground distribution assets;
- a relatively compact distribution area of 25,000 square kilometres;
- stable network performance that is largely compliant with licence requirements, although performance is sensitive to severe weather; and
- some network quality concerns related to flicker and voltage regulation related to embedded solar PV generation.

3.2 Features of the Endeavour Energy Capital Investment proposal

The Endeavour Energy capital investment proposal for 2019-24 is shown in chart 15 below:

Endeavour Capex ($M 2019%)	**$M, $2019, some rounding**			
	2009-14 actual	2014-19 allowance	2014-19 forecast	2019-24 proposal
New Connections	85	84	125	309
Growth -/ Augex	1190	306	256	417
Replacement	814	720	617	800
Reliability	60	27	19	20
Other	69	22	49	41
Overheads	540	391	363	400
Total System	2758	1549	1429	1998
IT	94	90	121	91
Vehicles	71	29	18	22
Other	110	61	51	57
Total Capital	3032	1729	1619	2158
Data is derived from the Endeavour proposal July 2018 and information from Deep Dive 1, 23 February (allowance)				

Chart 15, Source: Endeavour Energy - proposed capital expenditure 2019-24

Based on the proposal and the pre-lodgement consumer engagement, CCP10 has identified a number of significant features in Endeavour's proposal:

i. Overall, at $2.16B, Endeavour is proposing a significant 33% ($538M) increase the capital expenditure for 2019-24 over the forecast expenditure in the current period.

ii. A major component of that increase is a significant (63%, $161M) increase in investment in network capacity.

iii. A large increase in the investment to replace aged assets also is proposed, up 30% or $183M on the current period.

iv. The number of new connections is expected to increase by around 10% to approx. 110,000

v. There is a material under-expenditure in the current period compared to the allowance in the areas of network capacity (-16%) and asset replacement (-14%, $103M).

vi. Much of the unspent allocation in core network investment has been tempered by over-budget expenditure in new connections and Information Technology.

vii. Despite the lack of support from customer groups, Endeavour has retained the proposal to reduce the proportion of connection capital expenditure carried as contributions from developers. The actual dollar impact of this change is unclear; it is estimated at being approximately $180M.

viii. A 30% proposed increase in asset replacement expenditure

The growth in new connections and customer electricity demand formed a large part of the Endeavour capital investment conversation in the engagement leading up to the proposal.

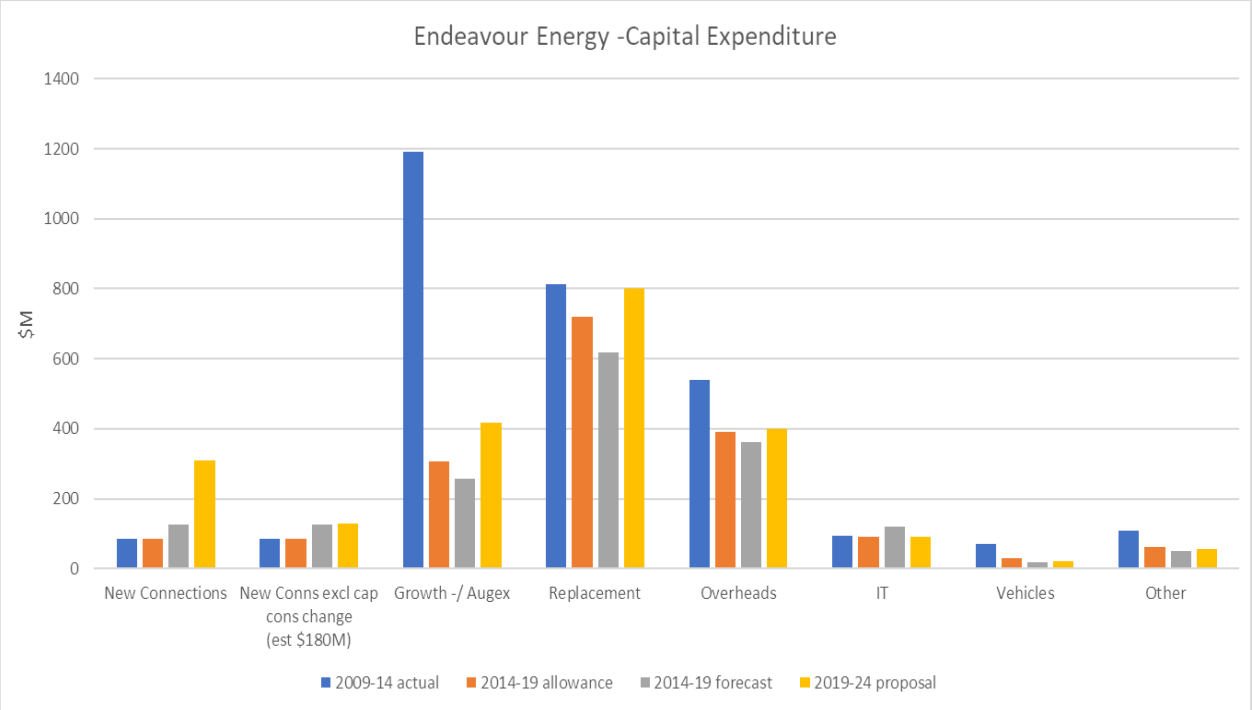


Figure 15, Source: Capital Expenditure trends, Endeavour Energy

3.3 Endeavour Energy - Key Issues for CCP10

From this information, in combination with the considerable amount data of presented to the customer groups during the pre-lodgement period, the following key issues have emerged:

i. The case for the decrease in the developers' contribution (capital contribution), estimated at $180M, to new subdivisions has not been made and is therefore not supported.

ii. Benefits from the significant investment in asset growth and replacement in the 2009-14 period are not evident in Endeavour's approach to asset failure risk or meeting growth in brownfield or network fringe areas. We believe that the capital requirements for asset replacement and growth may be overstated.

iii. The significant increase in the network capacity augmentation cost over the current period (63%, $161M) has not been justified, particularly when considering only moderate growth in new connection numbers and the relatively speculative nature of some developments.

iv. The design and high unit cost of new substations and lines does not reflect the wider community's expectation for prudent investment leading to lower energy costs.

v. The programme and high unit costs to replace network assets (lines and substations) does not appear to reflect an aggressive approach to cost reductions. We believe the significant increase over the last period (30%, $183M) has not been justified.

vi. Given Endeavour's exposure to weather-related peak demand and rapid grid-fringe growth, we would expect the company to be at the forefront nationally on initiatives related to demand management, efficient new connections, tariff incentives and the like. There appears to be a significant unrealised opportunity for Endeavour to take advantage of opportunities in new technology in lieu of building new network assets.

vii. The over-expenditure in information technology in the 2014-19 period does not appear to have resulted in a lower level of IT investment in the forthcoming period, nor are the benefits of the additional expenditure to customers obvious. We would expect a lower level of investment in IT this coming period.

These and other matters are discussed in the sections below.

Despite the strong case for investment to meet the energy demands of new residential and commercial development in the Endeavour area, CCP10 is strongly of the opinion that Endeavour Energy has not made a reasonable case in justifying this significant increase in expenditure above that required for the current period. We believe there is a strong case for significantly reduced investment, even to the order of 20%, as a result of addressing the opportunities noted in this report. We believe such reductions in investment will have only minimal impact on the performance of the network and delivery of services.

3.4 Growth forecasts

Customer numbers and new connections

Endeavour Energy presented a lot of data in support of the claim for significant investment in new energy capacity in these growth areas. The support by the UDIA for Endeavour's investment plans is clear and noted.

During the consumer and stakeholder engagement and in the proposal itself, Endeavour staff provided a number of diverse and at times confusing sources of data, including land

releases, housing starts and connection information. Endeavour advises that 480,000 new dwellings to be required over the next 25 to 30 years, suggesting a figure of 20,000 per year (DAPR 2017)[7]. This is supported by data from the deep dive of 23 January 2018, which suggests 20,000 new connections per year for the next 25 years[8].

In their proposal overview (pages 17 – 19) Endeavour lists a number of projects to ensure the network is sufficiently resilient and able to connect forecast demand growth over the next five years. This data, referencing the capital requirement for growth and augmentation, sums to over 170,000 new dwellings, well over the estimates provided from other sources [9].

In reviewing this apparently conflicting data, including that provided in the Deep Dive of February 2018 (chart 16 below), CCP10 accepts Endeavour's customer growth forecasts indicating that approximately 100,000 new customers may need to be connected in the 2019-24 period, a small increase on the number being connected in this current period and consistent with current trend.

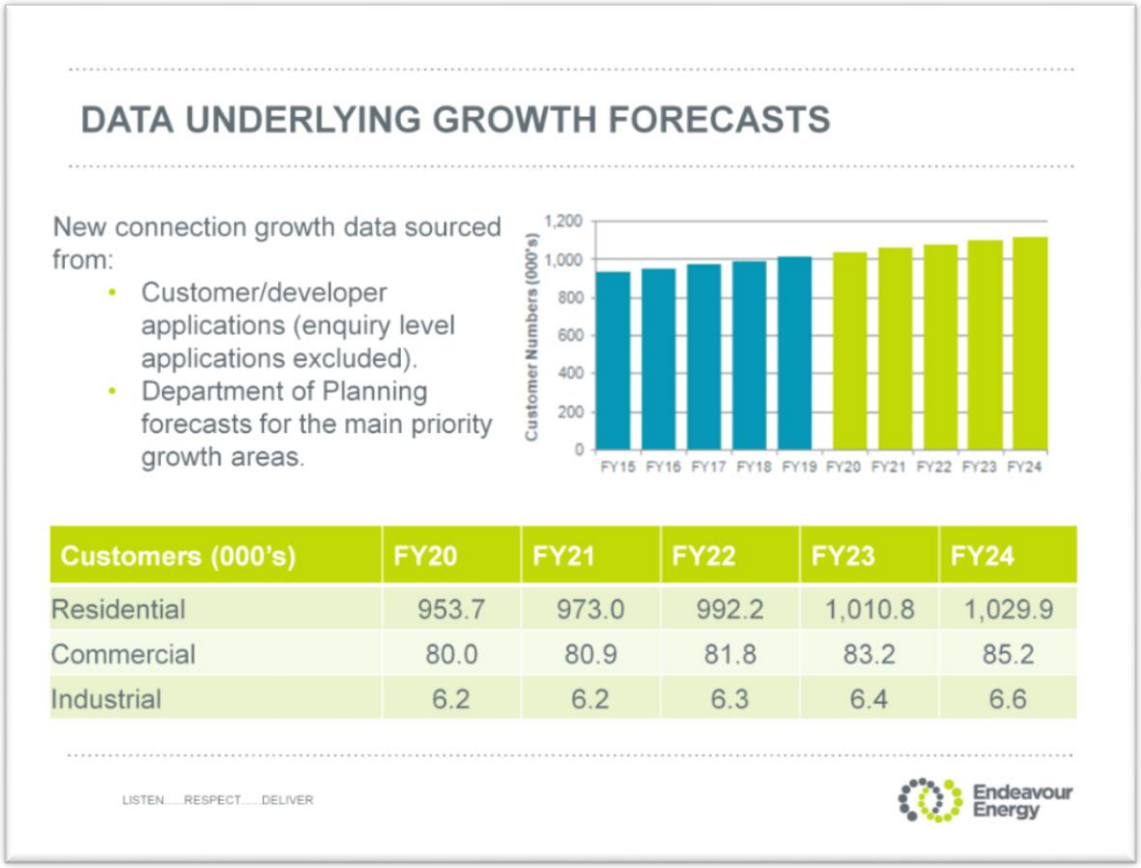
We recognise the need for Endeavour to meet these significant growth rates through its investment plan, however the lack of clarity and the variability in this information requires a prudent, measured and considered approach.

We believe a high risk of over-investment or building assets too early exists.

"The continued investment by Endeavour Energy in building its network is not only encouraged it makes sense. It is crucial that this growth is delivered in a timely and affordable fashion"

(UDIA advice to Endeavour Energy, Deep Dive 23 Feb)

[7] Distribution Annual Planning Report (DAPR), December 2017, p28
[8] Capex Deep Dive, 23 January 2018 (slide 12, notes)
[9] Proposal Overview, June 2018 pp17 - 19



Customers (000's)	FY20	FY21	FY22	FY23	FY24
Residential	953.7	973.0	992.2	1,010.8	1,029.9
Commercial	80.0	80.9	81.8	83.2	85.2
Industrial	6.2	6.2	6.3	6.4	6.6

Chart 16, Source: Endeavour Energy connection growth forecast (Deep Dive 19/1/18, slide 21)

Demand growth

Endeavour plans to construct 16 new zone (suburban supply) substations, double that of the last five years. Whilst the recent record peak demand coincident with extreme summer temperatures in January 2017 is discussed, the capex proposal (p12)[10] notes major projects related to the growth in customer numbers as the prime driver of upstream network investment.

Demand growth is forecast at between 3% and 4% early in the next period, however it is unclear from the data provided how much of this growth is in existing (brownfield) areas and in new developments. Demand growth information, including the main contributing factors and expended influence of initiatives such as demand management, new energy tariffs and organic demand changes are not presented in Endeavour's engagement. We see this as a major shortcoming of the engagement with consumers, and trust that this information will be more transparent in the future.

Endeavour utilises several 'bottom up' planning processes and forecasting methodologies to prepare a 10-year augmentation plan.

Major projects account for 87% of the network augmentation expenditure. In the 2017 DAPR, Endeavour notes 17 capital projects that will be subject to a Regulatory Investment

[10] 2019-24 Capital Proposal (SAMP) p12

Test (RIT-D) for constraints that may arise in the coming regulatory period, including three associated with the Sydney Priority Growth area or 'Third City'.

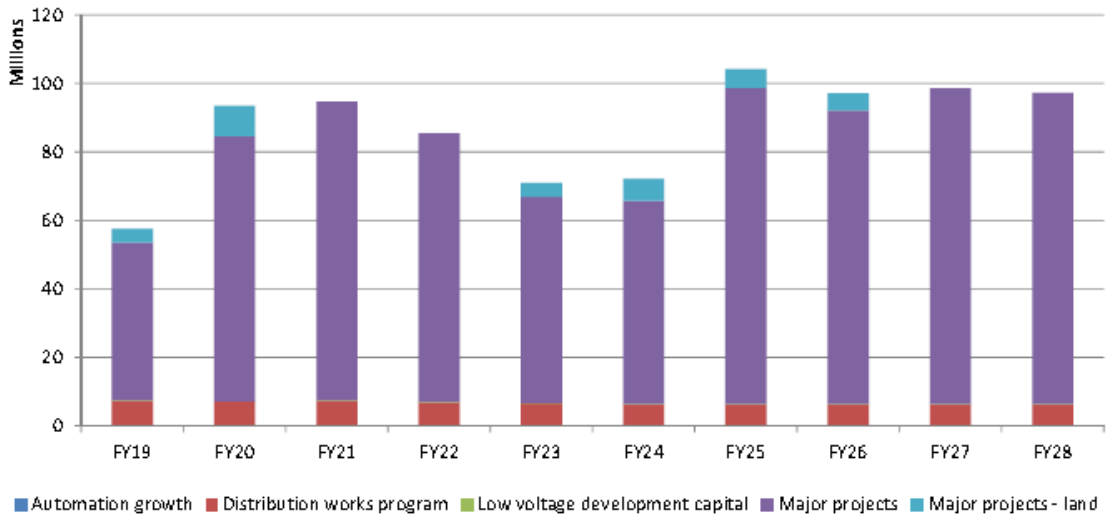


Figure 16, Source: Endeavour Energy Augex Expenditure projection (Capex proposal SAMP)

3.5 Connecting new customers

Endeavour Capex ($M 2019%)				**$M, $2019, some rounding**
	2009-14 actual	**2014-19 allowance**	**2014-19 forecast**	**2019-24 proposal**
New Connections	85	84	125	309

Chart 17, Source: Endeavour Energy regulatory proposal 2019-24

As noted earlier, the data provided by Endeavour regarding the cost of connecting new customers, sometimes referred to the 'shallow' connection assets, presents differing views on costs. These differing views make it difficult to ascertain the real impact of the change to the contribution policy on new and existing customers. Reconciling the total costs and the sharing arrangements for new connections is discussed in a number of documents.

Change to the connection cost contributions policy

The proposal document indicates a forecast expenditure by Endeavour for new connections in the existing period (2014-19) to be $125M; with that amount rising to $309M in 2019-24, due in part to the change in the cost sharing arrangements. In the capex deep dive of 23rd January, Endeavour presented information to support the argument that connection costs were becoming more efficient, and that the connection capital for 2014-19 was $262M. This group of slides and information presented to the consumer groups was poorly explained, and in retrospect appears to contain conflicting information.

The matter was presented to the company's Customer Consultative Committee (CCC meeting) of the 21st November 2017, where it was explained that Endeavour is an 'outlier' with the developers' share of connection costs being much higher than the industry norm. A change in the contribution rate from Endeavour to the cost of new shallow connections from around 10% to 38% was proposed.

The impact on network costs to existing customers, or the confidence that cost reductions would be passed to new customers, was not discussed, nor was any commercial guidance given.

It is noted that Endeavour presented analysis that the change to the contribution arrangements did in fact present a taxation benefit which resulted in a reduced cost to customers in the first few years, but higher costs in later years. Whilst not discounted, consumer groups believed that this was overshadowed by the main matters of concern noted below.

CCP10 reiterates our concerns that:

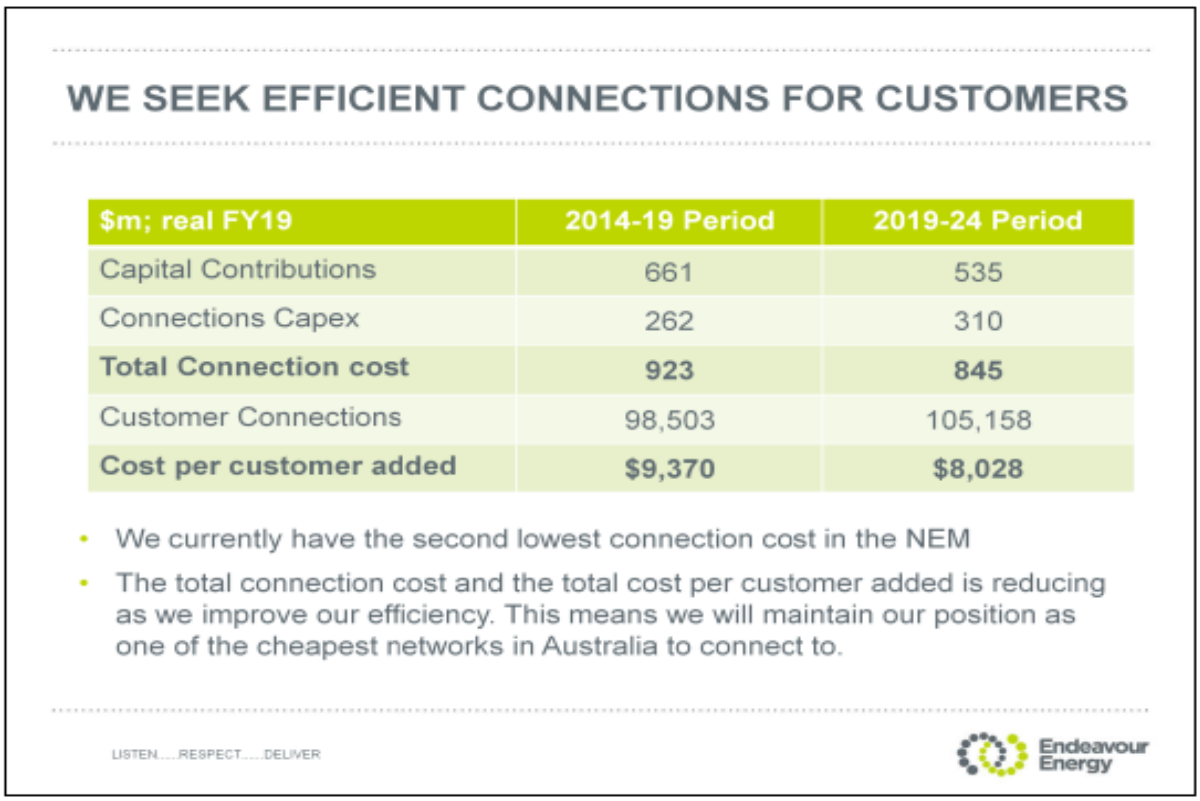
d) the change to the policy had not been taken to the Endeavour Consumer Consultative Committee (CCC) for discussion and endorsement prior to its enactment, casting some doubt as to the effectiveness and approach to the role of their CCC;

e) some doubt that the change in policy, in requiring a reduced contribution by developers to the connection or electricity to new land subdivisions will in fact be passed on in full to customers purchasing new blocks of land; and

f) the discussion that Endeavour, who present themselves as being an 'outlier' when compared to the proportion of developer contributions in other jurisdictions, are not a 'laggard' but actually a 'leader' in representing emerging expectations of energy customers.

On that basis, the justification for the change in the contributions policy and the demonstration that the connections process in Endeavour is becoming more efficient is rejected.

We note that Endeavour supports further and wider discussion on the area of Capital Contributions.



WE SEEK EFFICIENT CONNECTIONS FOR CUSTOMERS

$m; real FY19	2014-19 Period	2019-24 Period
Capital Contributions	661	535
Connections Capex	262	310
Total Connection cost	**923**	**845**
Customer Connections	98,503	105,158
Cost per customer added	**$9,370**	**$8,028**

- We currently have the second lowest connection cost in the NEM
- The total connection cost and the total cost per customer added is reducing as we improve our efficiency. This means we will maintain our position as one of the cheapest networks in Australia to connect to.

LISTEN.....RESPECT.....DELIVER

Endeavour Energy

Chart 18, Source: Aggregated connection cost data - Endeavour Energy (deep dive slide 21)

On the information presented at the deep dives, Endeavour expect to connect approximately 100,000 new premises across the Industrial & Commercial (IC), non-urban (NU) and Underground Residential (UR) categories. This is presented as being similar to the number of new connections made in this period.

We believe an appropriate allocation of capital for the connection of new premises should be in the range of $110M – 125M, based on:

- similar numbers of new connections as the existing period
- adequate funds being spent to connect the current new customers
- Endeavour delivering a reduction in the cost per new customer connected of up to 10%, as highlighted in figure 5 above, and
- Endeavour suspending its plans to change the cost sharing arrangements (capital contributions) with developers

3.6 Investment in growth and network capacity

Endeavour Capex ($M 2019%)			**$M, $2019, some rounding**	
	2009-14 actual	**2014-19 allowance**	**2014-19 forecast**	**2019-24 proposal**
Growth -/ Augex	1190	306	256	417

Chart 19, Source: endeavour Energy regulatory proposal 2019-24

The significant increase in the planned expenditure on growth and network capacity is of concern.

We acknowledge the significant growth in greenfield development in the Endeavour supply area, and that investment is needed to meet that growth. What is unclear is why the 60% increase is required against the background of:

- low peak demand in established areas
- new customer connections forecast to be at a similar rate to the current period
- significant investment in network capacity in recent periods
- lack of a demonstrated aggressive approach to cost reductions in the design of new assets
- the expected impact of new technology, price response and customer price awareness

Endeavour was able to spend a significant amount of money – almost $1.2B – in growing the capacity of their network in 2009-14 – in a period where demand and customer growth was a fraction of current levels. In conversation with Endeavour during the pre-lodgement engagement process, it was explained that the value of that investment was rapidly 'used up' to meet growth in the current period, and that the increase proposed for 2019-24 reflects largely a return to necessary levels.

We do not accept that position.

It is reasonable to expect that, as much of the investment in 2009-14 related to a changed security standard, meeting the standard would involve asset duplication, capacity upgrades and 11KV network augmentation. Consistent with other distributors, such investment should create the opportunity to accept incremental load growth in existing networks very efficiently. In addition, improved reliability should present reduced risk of power interruption in case of plant failure, allowing a shift in the risk parameters for probabilistic plant failure in reduced load at risk and mean time to repair.

Similarly, increased upstream network capacity should allow new load to be connected largely as extensions of the distribution network. We note that Endeavour's approach to greenfield augmentation leans heavily towards the extension of the sub-transmission network and new major substations.

No load-at-risk or substation utilisation information was provided in the proposal or as part of the engagement to assist stakeholders understand the commercial performance of the investments in previous sub-transmission developments.

Put simply, Endeavour Energy was not able to clearly explain to their customers where the huge investment in 2009-14 went, and why it is not an advantage in mitigating the significant increase in expenditure requirements for the next period.

Brownfield Augmentation

We note Endeavour's plans for around $117M to be spent on capital augmentation in existing network areas. CCP10 explained that the information provided by Endeavour indicated that few substation zones in the existing area are loaded beyond firm capacity,

especially after the impact of the significant investment ($1000M +) in new capacity in the environment of enhanced network security standards in the 2009-14 period.

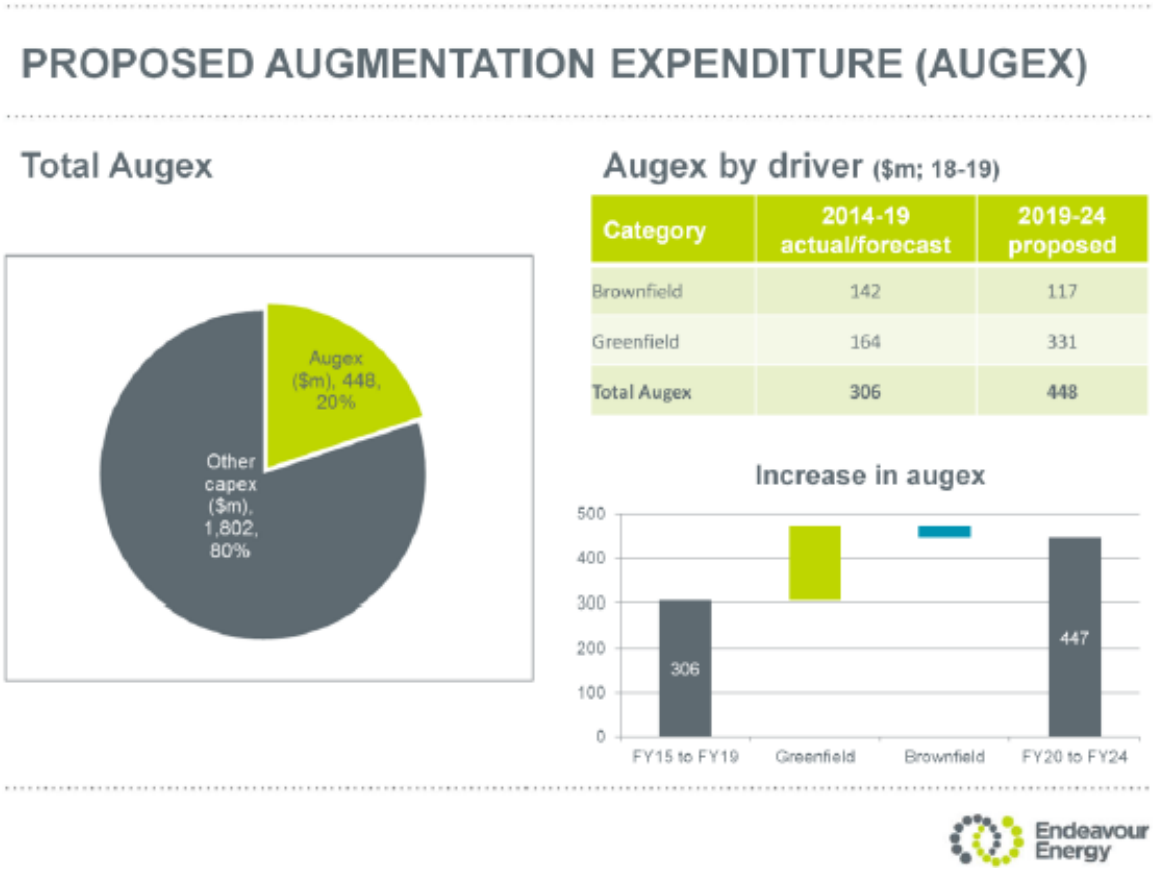


Chart 20, Source: Endeavour Energy Augmentation by network - Deep Dive p43

Our expectation is that Endeavour would follow the trend of most other jurisdictions and significantly reduce the level of capacity augmentation in existing network areas, with a focus on improving the utilisation of existing assets, risk management, demand management and connection contracts focussing on efficient use of existing network assets.

We advised that we had difficulty finding clear information on the factors driving demand growth in existing network areas, including an assessment of the impact of new tariffs, demand management and energy efficiency policies.

As a result, we believe that close to a 20% reduction in brownfield augmentation may be possible without impacting the key parameters of energy supply expected by consumers.

Greenfield augmentation – timing, surety, unit costs and falling utilisation

The prime concern is the significant step up in the cost of developing new capacity on a *per customer* or *per MVA added* when compared to the current regulatory period and experiences with other jurisdictions.

We note that Endeavour's explanation suggesting that most development in the current period was physically closer to existing assets, suggesting supply at distribution voltages was

possible, whereas growth next year is more remote from existing sites that may have spare capacity.

If this is the case, the idea of a greater proportion being shared assets must be questioned in relation to the capital contributions discussion.

Our main concerns based on information presented in the engagement are:

a) The development business cases tended to place a lot of confidence that the proposed developments will come on line in the form and time indicated by the developers, and the risk assessments did not fully consider delays, timing or slower growth, especially in the later years. CCP10 considered this to be 'speculative development risk'.

b) The business cases and budget costs suggested significant assets to be constructed, including underground transmission feeders, full substation capacity. It is questioned whether lower cost construction methods (overhead transmission wherever possible), staged construction, less elegant design parameters may be appropriate.

c) Given new developments in localised energy generation, developing new capacity in a traditional and low-risk manner may lead to asset stranding and under-utilisation.

The construction of new capacity assets will not address the fact that many existing assets may be operating below capacity. The value of improving the utilisation of existing assets before constructing new ones must be a major consideration in developments.

We believe that the capital investment proposal is based heavily on announced land releases and a paradigm that the rapid development of advanced sub-transmission assets and zone substations is needed. We see little evidence of innovation, risk taking or carefully staged approaches to such significant expenditure in asset design and project timing.

Similarly, whilst it is acknowledged that the cost of new significant assets is falling, we believe this is largely due to the volume of work proposed, and not through a passion for innovation and respect for costs.

We believe that there are opportunities to significantly reduce the level of expenditure requested for new asset development, although it is acknowledged that the development will require greater funds that 2014-19 levels.

3.7 Replacing aged assets

Endeavour Capex ($M 2019%)	**$M, $2019, some rounding**			
	2009-14 actual	**2014-19 allowance**	**2014-19 forecast**	**2019-24 proposal**
Replacement	814	720	617	800

Chart 21, Source: Endeavour Energy regulatory proposal 2019-24

Endeavour propose a significant increase of 30% ($183M) in replacement capital (Repex) for 2019-24. This is in the context of significant expenditure on both augmentation and

replacement of assets in the 2009-14 period, and a forecast under-expenditure of $103M in the current period.

This situation raises many questions, especially in light of:

a) The need for replacement centred on asset lives and failure probabilities, with little data being presented to consumers on actual failure rates and impact of plant failure to support the forecasts. (The conversation was mainly around equipment other than poles and conductors, being around 70% of repex). Information around actual failure rates and the mitigation of the impact of failures (spares policy, generators, etc.) was not clear in the engagement nor in the proposal.

b) An expectation that the significant investment in network security in brownfield areas in 2009-14 would provide an effective 'risk buffer' to mitigate the impact of plant failure. It was noted that very few established substations were operating over N-1 reliability by 2025, even at 10% PoE.

c) A narrative outlining further opportunity to mitigating the risk of failure through spares policy and similar actions was not evident.

d) The impact of the expenditure on new and upgraded plant and equipment during the period of high investment is not evident in the data relating to asset age or failure risk, especially in existing (brownfield) network areas.

Of prime interest is the fact that it is unclear whether this underspend has been due to efficient work practices or alternative approaches, especially considering the significant increase in capital requested for the following period.

We note several minor repex items, including duplicating substation batteries, protection systems and buildings that appear to be significant expenses in their own right. Efficient spend and justification is questioned.

We believe that there is an opportunity for the AER to not accept the proposed increase in the replacement capital expenditure, encouraging Endeavour to focus on failure data, risk mitigation strategies, innovation and Demand Management.

3.8 Investment in reliability improvement and other initiatives

Endeavour Capex ($M 2019%)	**$M, $2019, some rounding**			
	2009-14 actual	**2014-19 allowance**	**2014-19 forecast**	**2019-24 proposal**
Reliability	60	27	19	20
Other	69	22	49	41

Chart 22, Source: Endeavour Energy regulatory proposal 2019-24

Expenditure on reliability improvement is accepted by the CCP10.

We also accept the required investment in developing a better understanding of the low voltage network renewing metering and addressing power quality, enhancing Endeavour's capability to integrate DER and undertake more effective demand management.

The investment in the Distribution Management System (DMS) of $24M should be investigated given the significant IT expenditure programme, asking why this funding for Operational Technology is not considered along with other IT programmes.

3.9 Capitalised Overheads

Endeavour Capex ($M 2019%)	$M, $2019, some rounding			
	2009-14 actual	**2014-19 allowance**	**2014-19 forecast**	**2019-24 proposal**
Overheads	540	391	363	400

Chart 23, Source: Endeavour Energy regulatory proposal 2019-24

As with operating costs, we would expect to see ongoing productivity benefits reducing the 'back-office' costs and overheads, especially after the significant IT spend ($31M, 34%) overspend in 2014-19.

As a guide, Endeavour is expecting to deliver a capital overhead ratio of 25.4% in 2014-19. The proposal for 19-24 is to reduce that ratio to 22.1%, which is applauded. Should Endeavour realise further reductions in system capital due to better risk management and reduced unit costs, it could reasonably be expected to deliver a greater real reduction in capitalised overheads through back-office efficiencies.

Note that the capital overhead ratio is a somewhat imprecise value but useful as a guide. It is calculated as the ratio of the value of the capital overheads to the total system capital requirement.

3.10 Non-system capital Investment

Endeavour Capex ($M 2019%)	$M, $2019, some rounding			
	2009-14 actual	**2014-19 allowance**	**2014-19 forecast**	**2019-24 proposal**
IT	94	90	121	91
Vehicles	71	29	18	22
Other	110	61	51	57

Chart 24, Source: Endeavour Energy regulatory proposal 2019-24

a. Information Technology

We see investment in information technology as requiring a clear positive impact on business efficiency, capability, compliance or service to customers. It is difficult to identify a poor IT investment, as its replacement or remediation is buried deep in terms such as 'upgrade', 'compliance' or 'refresh'.

In the current 2014-19 period, Endeavour plan to overspend the allowance of $90M for IT expenditure by 34%.

Granted, much of this expenditure appears to be allocated to the maintenance and upgrade of the infrastructure and capabilities. In the ICT Investment Plan, it is unclear why the overinvestment was needed nor are the benefits to customers in terms of improved business performance.

For the proposed investment in IT over the 2019-24 period, consistent with the approach by other distributors, Endeavour highlight the risks from cyber-attack as a pressing area for the investment in IT facilities. In addition, the prime drivers for IT investment are noted by Endeavour [11] in 2019-24 as:

- maintain core systems $33M
- maintain security standards $14M
- sustain reliability of ICT services $29M
- engage the customer and Enable Network Efficiency $14

We see little evidence of the benefits of these investments for customers. We recognise that a significant component of the investment relates to business continuity risk and compliance. We have two concerns regarding the proposed IT expenditure:

1. The options analysis in the strategic plan are binary. Options considered are (a) do nothing, or (b) invest as planned. There appears to be no attempt to engage customers in real options, such as articulating the costs and risks of the deferment of investment, alternative solutions or the real impact to consumers. Benefit analysis is of the form of 'do all these good things, where the disadvantage is to spend money.

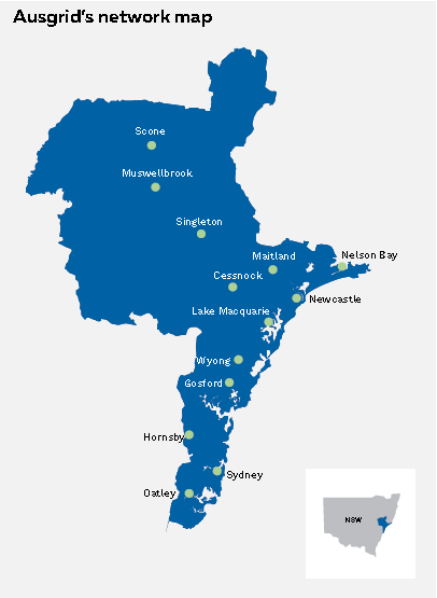
   We believe that the ICT Investment plan is not a customer-focused document, and does not support transparent, validated and efficient ICT investment.

2. IT investments directed at frontline customers services and business efficiency are not linked to demonstrable reductions in the cost to do business. It is reasonable to expect that many investments in business efficiency should be largely 'self-funded' by the distributor. Why should customers pay for facilities that assist the business to operate more efficiently?

[11] Endeavour regulatory proposal, April 2018, p20

Ausgrid

3.11 Overview of Ausgrid



Ausgrid is the largest single electricity distribution utility in Australia by customer and demand, supplying energy to around 1.7 million premises.

Through February 2018, Ausgrid presented a number of 'deep dives' to discuss their investment plans with consumer representatives. Ausgrid is a largely urban utility, with responsibility of supplying the growing Sydney CBD and inner city, as well as the suburban areas of Sydney. Their distribution area has some short rural network in the Hunter valley.

Ausgrid is a company in transition. Following the recent private investment into Ausgrid, CCP10 (along with other consumer groups) perceives significant opportunities for consumers to share the benefits from changes to industrial legislation, restructuring and benefits from previous significant capital investments.

In years gone by, Ausgrid has invested the second- highest level of capital per customer in the national grid.

Features of Ausgrid's network include:

- a low penetration of renewable energy, due in part to the high proportion of small homes and multiple occupancy buildings;
- stable and compliant network reliability;
- a significant proportion of high voltage feeders underground, a proportion of which are reaching maximum service age; and
- growth driven largely by large infrastructure development and residential infill as a result of property rezoning.

3.12 Features of the Ausgrid Capital Investment Proposal

The Ausgrid capital investment proposal for 2019-24 is summarised in chart 25 below.

Ausgrid Capex ($M 2019%)	**$M, $2019, some rounding**			
	2009-14 actual	**2014-19 allowance**	**2014-19 forecast**	**2019-24 proposal**
New Connections	342	245	96.5	52.1
Growth / Augex	2243	347	164	189
Asset Replacement	3032	1927	1677	1673

Ausgrid Capex ($M 2019%)	$M, $2019, some rounding			
Reliability	22	22.5		16.4
Other	106		32	
Capitalised Overheads / support	1166	740	702	621
Total System	**6889**	**3281**	**2671**	**2535**
IT	208		198	215.5
Vehicles (Fleet & plant)	143		55	124
Other	358		189	208
Total Capital	**7598**	**3523**	**3113**	**3084**
Data is derived from the Ausgrid proposal July 2018 and deep dive presentation 7 Feb 18 (forecast & past periods)				

Chart 25, Source: Ausgrid regulatory proposal 2019-24

From their proposal and the preliminary engagement, we have identified a number of features of the Ausgrid proposal:

1. As at February 2018, Ausgrid are forecasting an under-expenditure in the current period compared to the allowance of approximately 11% or $410M. Despite this underinvestment, Ausgrid are not reporting any direct impact to network performance or customer service. We note that expenditure in the first three years of this period is considerably below that of the forecast, suggesting that Ausgrid has an aggressive investment programme for the final two years of the period.

   We watch the ability for Ausgrid to undertake this accelerated investment with interest, as it will have a bearing on the work that may be carried over, to be funded in the 2019-24 period.

2. After the stakeholder engagement of early 2018, we note that Ausgrid has reduced the proposed capital investment in 2019-24 by $103M from data initially provided in February 2018. Ausgrid advise that this reduction in part ($63M) reflects the impact of additional operating expenditure in demand management activities that will defer some investment in network capacity.

3. With the TransGrid's Powering Sydney's Future (PSF) project proceeding, Ausgrid has noted that the investment to replace aged 132KV cables has been reduced by $239.8M[12]. This suggests that the capital requirement for asset replacement based on Ausgrid's original analysis may have been as high as $1913M prior to the PSF project being approved.

[12] Ausgrid regulatory proposal 2019-24, p81, table 18

In the deep dives and engagement leading up to the revenue proposal, Ausgrid highlighted a number of times that the capital requirement for the upcoming period is very similar to the actual investment in the preceding period, reflecting an unwritten policy for 'stable' expenditure. CCP10 questions this given the 'windfall' impact of the TransGrid PSF investment.

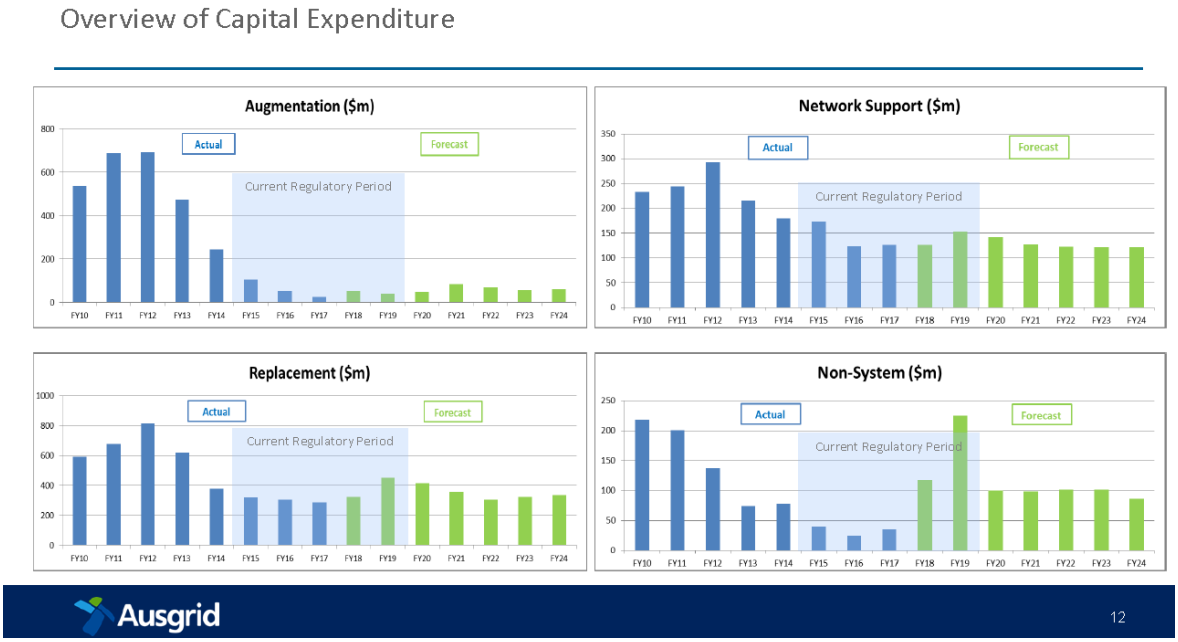


Figure 17, Source: Ausgrid overview of capital expenditure (Deep Dive 7 Feb 18, p12)

3.13 Ausgrid - Key Issues for CCP10

Ausgrid have clearly taken the approach of a 'stable expenditure profile' in planning their expenditure requirements for 2019-24, largely reflecting the capital investment profile of the current period. Our concern is that Ausgrid, in our observation is a 'company in transition' with further material opportunities for further significant efficiencies in both their planning and cost inputs.

Overall, CCP10 believes that there are many opportunities available to Ausgrid to reduce capital expenditure whilst maintaining service levels, through an opportunity to better respond to the risk of plant failures (repex) and leadership in the application of demand management and new technologies. An aggressive approach to driving down the cost of work through design opportunities and work planning appear available. Opportunities to reduce non-system investment may also be available.

Against this background, we highlight the following for further investigation by the AER:

i. The impact of the reduction in cable replacement costs following the implementation of PSF Is not clearly articulated in the programme, especially when extrapolating the costs of cable replacement from the current period.

ii. The business cases for the continued investment in the replacement of major assets, in particular oil-filled sub-transmission cables reflect a conservative view of the risk and impact of failure. Staged approaches to major projects and more effective risk

management may assist greatly in reducing the number and cost of the projects proposed in 2019-24.

iii. Benefits from the significant investment in asset growth and replacement in the 2009-14 period are not evident in Ausgrid's approach to asset failure risk or meeting growth in established brownfields. We believe that the capital requirements for asset replacement and growth may be overstated.

iv. Whilst we support Ausgrid's approach to demand management, we believe that there are many more opportunities in areas of new technology, microgrid design and price signalling that could have a significant impact on the augmentation and asset retirement opportunities.

v. The design and high unit cost of new substations and lines does not reflect the wider community's expectation for prudent investment leading to lower energy costs. Given Ausgrid's approach to organisational efficiency, we believe that a significant focus on driving down the component costs of major works will benefit customers though reduced project costs.

vi. Ausgrid plans to make significant investments in vehicles, property upgrades and facilities. Against the backdrop of rapidly falling staff numbers, we believe that Ausgrid should demonstrate opportunities to rationalise property and fleet services.

vii. Investment in information technology is significant, both in past periods and in this proposal. We believe that Ausgrid can better articulate the options and alternatives available to the high investment in information technology, and demonstrate the return on the investment to consumers in the form of cost reductions emerging from improved business efficiency and service improvements valued by consumers.

We believe that the prudency and efficiency of expenditure in most categories of capital investment of the Ausgrid Revenue Proposal have not been established.

Ausgrid is noted as having the highest 'excess growth as a percentage of RAB growth' (Grattan, figure 2 above). Ausgrid invested close to $7.6B in network and non-network assets in the 2009-14 period; over $5B of which was in new plant and equipment.

We expect that level of prior expenditure, along with the efficiencies becoming available to Ausgrid, present a significant opportunity to reduce the level of investment required to maintain a safe and reliable network, times of changing customer requirements.

This significant expenditure in a low interest rate environment has the potential to trigger significant price rises in future years, when interest rates inevitably return to a higher point in the cycle. In our view, the long-term interests of consumers are better served by lower RAB values over time.

These and other matters are discussed in the sections below.

3.14 Growth in demand

Ausgrid notes in its Electricity Demand Forecast Report (2018) that lower rates of demand growth are occurring in general across its network, due largely to customers' response to increasing electricity prices. Only 5% of substations are forecast to exceed the substation

rating in 2022, reflecting in part the significant expenditure on network capacity in the 2009-14 period.

Only 15 zone substations have a load growth over 5%, typically as a result of large customer connections.

Ausgrid has an elegant demand forecasting process, with considerable application of post model adjustments including allowances for energy efficiency and embedded generation. This information was provided to consumer forums in a relatively transparent manner, for which Ausgrid should be recognised. Whilst general demand forecasts are of limited value in forecasting expenditure for the growth of network capacity, Ausgrid demonstrated their forecasting process as part of the pre-proposal engagement. This was of value to energy consumers.

Whilst we support the Ausgrid planning process, we believe a conservative approach to load growth has been taken, particularly in the impact of innovative demand management and customer's response to new forms of electricity pricing. We believe that the material allowances for Income / GSP and a possible underestimation of the opportunities for energy efficiency in new block developments may lead to the growth forecasts being overstated.

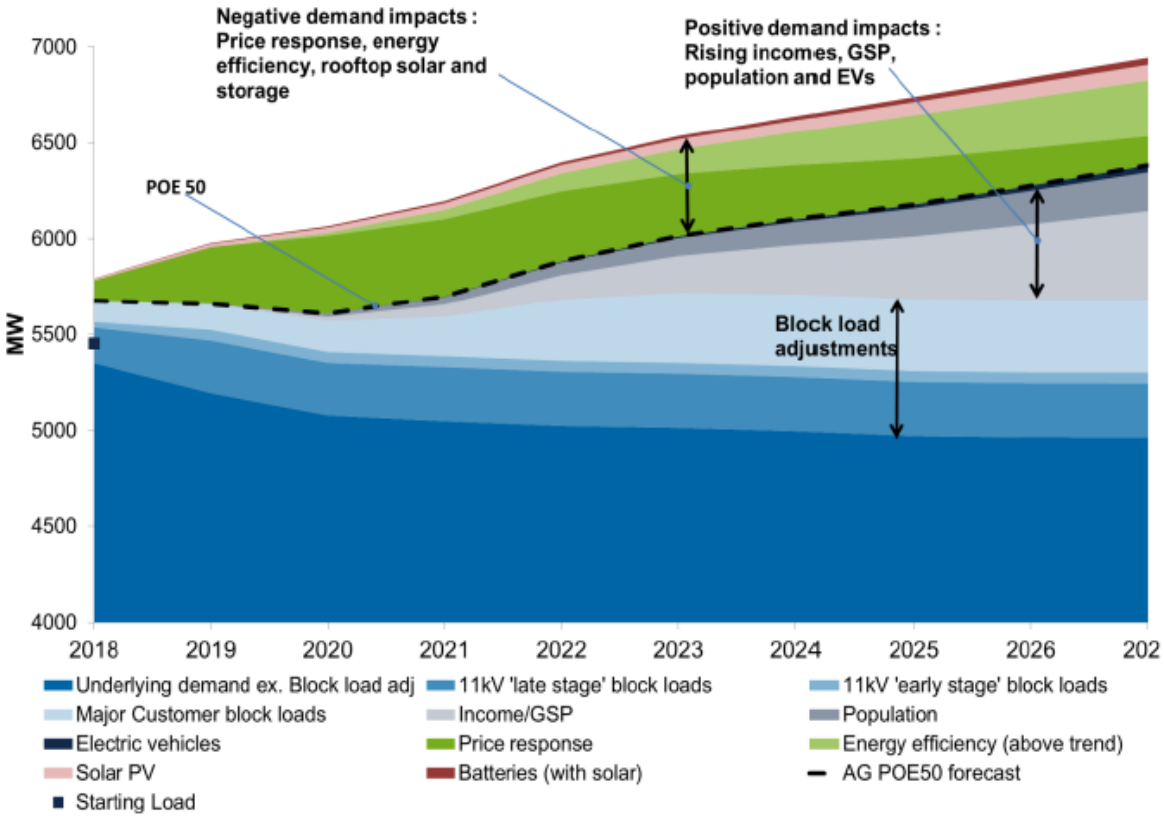


Chart 26, Source: Ausgrid regulatory proposal 2019-24

3.15 Investment in connections, growth and network capacity

Ausgrid Capex ($M 2019%)	$M, $2019, some rounding			
	2009-14 actual	**2014-19 allowance**	**2014-19 forecast**	**2019-24 proposal**
Connections	342		97	52
Growth / Augex	2243	318	164	189

Chart 27, Source: Ausgrid regulatory proposal 2019-24

Growth capex (total $241.3 million) – Ausgrid states that it will increase growth capex due to a rapid increase in major infrastructure connections, such as their Rozelle substation expansion ($18M), and localised precinct redevelopment in areas such as Macquarie Park ($28M).

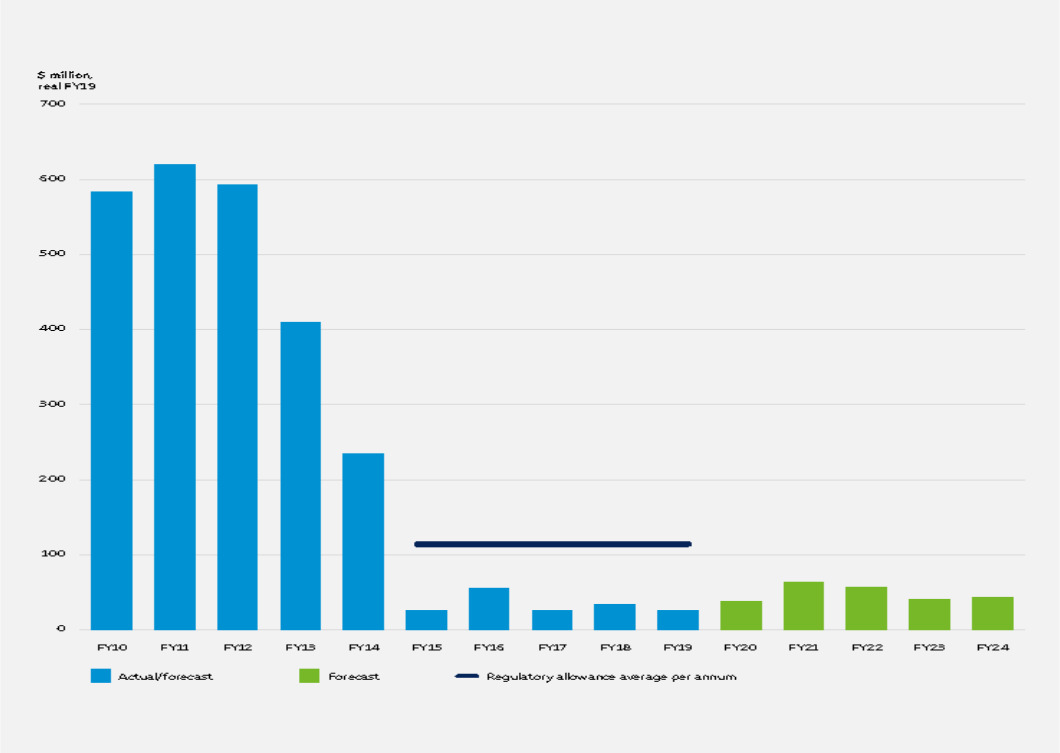
Figure 10 below, from the Ausgrid proposal, reflects a powerful reduction in augmentation requirements. This trend is common across many distribution utilities in Australia, especially those that were subject to generous reliability standards some years ago.

We accept Ausgrid's comments regarding the need for augmentation in these areas, with the expectation that:

a) regarding new connections, Ausgrid will pursue all opportunities to encourage demand management, load shaping, distributed energy resources and other technologies by the large customers through innovation, contractual arrangements and pricing; thereby minimising the capacity and optimising the utilisation of new connection assets; and

b) in all investment, including distribution augmentation, opportunities to reduce the cost though efficiencies in design, project delivery, scope and unit cost are aggressively pursued.

Trends in actual and forecast growth capex ($ million, real FY19)



Source: Ausgrid analysis.

Figure 18, Source: Ausgrid growth capex trend - (attachment 5.01)

3.16 Replacing aged assets

Ausgrid Capex ($M 2019%)	**$M, $2019, some rounding**			
	2009-14 actual	**2014-19 allowance**	**2014-19 forecast**	**2019-24 proposal**
Asset Replacement	3032	1760	1677	1673

Chart 28, Source: Ausgrid regulatory proposal 2019-24

Replacement capex ($1,673M – approximately 54 per cent of the total proposed capital investment) is expected to remain largely in line with current expenditure.

We note that the impact of TransGrid's PSF project allows Ausgrid to now exclude $240M of capital expenditure that was to replace 132kV cables and the proposal excludes this amount. It is assumed, therefore, that the underlying asset replacement plans for Ausgrid were expected to cost around $1913M before the TransGrid decision.

CCP10 are pleased to see Ausgrid taking this action with the redundant cables, however there is a risk that the savings have been transferred to fund other repex projects. We also note that Ausgrid has reduced the expected investment in asset replacement from $1,738 as presented to the deep dive of 7 February 2018.

In their public proposal document and the preliminary engagement, Ausgrid has outlined the following key replacement programmes:

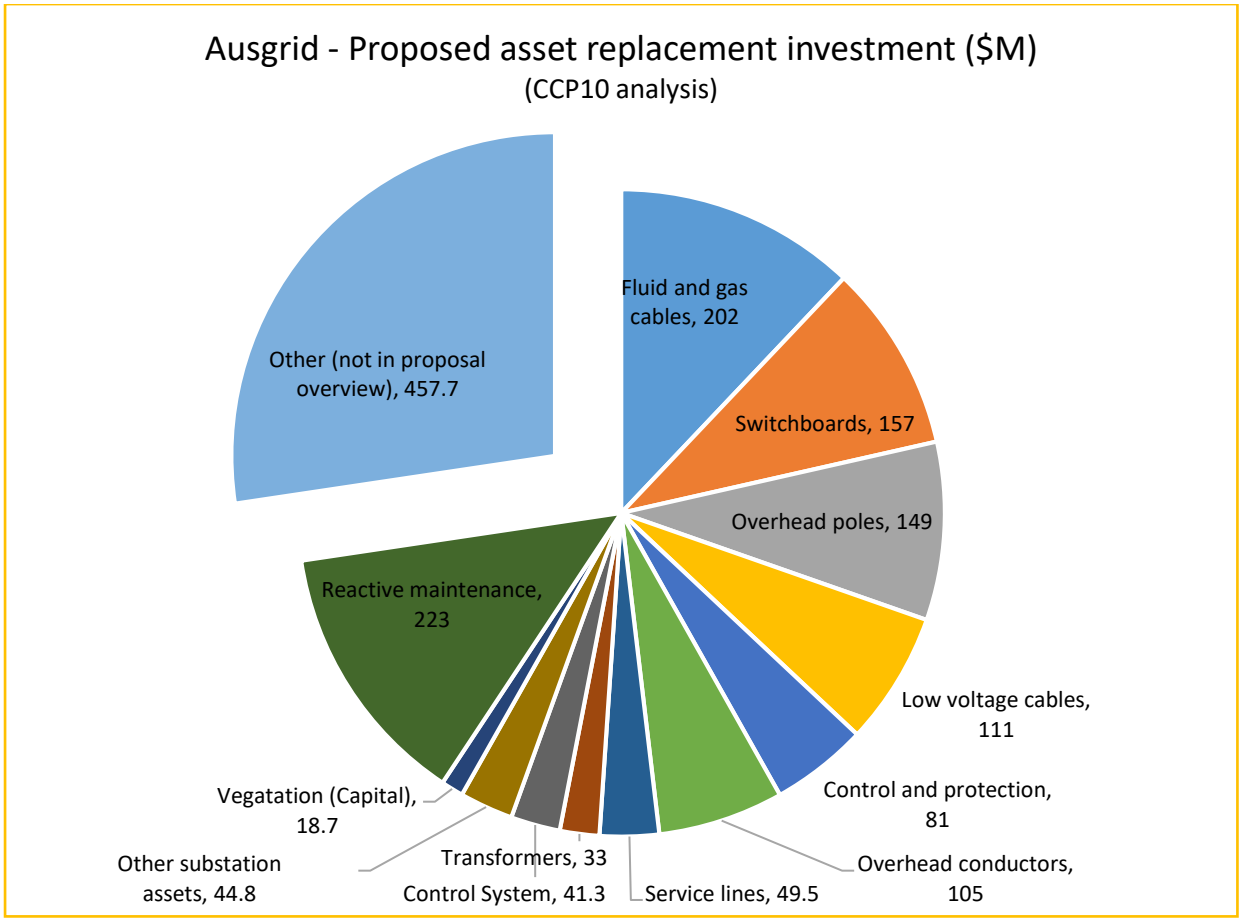


Figure 19, Source: Ausgrid Asset Replacement Proposal (Ausgrid proposal, pp83-84)

Deep dive workshop 3, held on the 12th February 2018, discussed the replacement of assets in detail. Several line items have reduced in value since that workshop, which we recognise as Ausgrid responding to consumer and stakeholder feedback. The rider that the presentation used values that were draft and subject to validation is noted.

We believe that the inclusion of the replacement of the centralised Demand Control System remains unclear in the proposal. In the preliminary engagement with stakeholders, Ausgrid noted a capital requirement of 25.5M for the System Operational technology Plan. In the overview of 12 February, that amount was $57M. The proposal calls for $41M to be allocated to the renewal of the Distribution management System (DMS). We suggest clarity in the nature, scope and value of this expenditure is required.

Also unclear is the funding required for the replacement of fluid-filled cables. In February, Ausgrid suggested close to $310M was required for this work. The proposal now asks for $202, presumably with the consideration of the $240M reduction in cable works due to the PSF project. Whilst acknowledging that the February data is draft, there appears to be lack of clarity as to the true funding requirement in this category.

In addition, a review of a number of the project proposals related to the replacement of major cables tends to rely on statistical risk of failure and replacement of both cables. We question this approach in light of an aggressive reduction of investment in the RAB, asking whether a more risk-based approach to single failure when N-1 reliability exists, similar to that taken by PSF.

Therefore, we believe there are opportunities to further consider reductions in the investment in replacing fluid-filled cables.

We also believe that a risk-based approach can be reconsidered in the treatment of low voltage cables (Consac), service lines and control and protection to the benefit of reducing the expenditure requirement. Alternative approaches such as the use of generators or backup systems that address the duration of interruptions were not discussed in the stakeholder forums.

Ausgrid presented information regarding the safety and reliability impacts of failed assets in the deep dive of 12 February 2018. We note that network supply reliability and the rate of customer-reported fallen and hazard wires is stable or falling, suggesting the current approach by Ausgrid is appropriate. We believe that the current level of expenditure in the area of hazard reduction can be continued into the next (2019-24) period.

Overall, in lieu of actual data, we believe that Ausgrid is taking a relatively conservative view to the risk of plant failure leading to the interruption of supply or an immediate safety risk. In addition, the opportunity to drive further cost reductions for the work through staging projects in a manner similar to PSF exists.

The justification of the replacement of the DMS, whilst supported in principle, should be examined closely by the AER in regard to further related costs and the delivery of operational efficiencies and customer benefits.

3.17 Non-system capital Investment

Ausgrid Capex ($M 2019%)	**$M, $2019, some rounding**			
	2009-14 actual	**2014-19 allowance**	**2014-19 forecast**	**2019-24 proposal**
Capitalised Overheads / support	1166	740	702	621
IT	208		198	216
Vehicles (Fleet & plant)	143		55	124
Property				208
Data is derived from the Ausgrid proposal July 2018 and deep dive presentation 7 Feb 18 (forecast & past periods)				

Chart 29, Source: Ausgrid regulatory proposal 2019-24

We wish to highlight the presentations given by Ausgrid staff in the deep dive of 7 February 2018, where line staff responsible for the corporate overhead functions attended and, in some cases, presented the cases for the non-network expenditure. This gave stakeholders the opportunity to clarify better understand the proposals.

a. Capitalised overheads and programme support

Ausgrid has made significant inroads in reducing the overheads and 'back office' costs of capital investment, from 74% of direct capex labour in 2009-14 to 64% in 2017-18. In the proposal for 2019-24, the investment of $621M is represented predominantly by Management and Business Support (64%) and Fleet running costs ($20%), as seen in figure 12 below.

As part of the stakeholder engagement, it was not clear that this proposal reflected the efficiencies and reduction in cost drivers that may be realised over the period. We would expect that Ausgrid has incorporated reductions in overhead costs due to, in particular:

iv) efficiencies derived from the investment in information technology, in particular SAP,

v) reductions in the fleet running costs from lower vehicle count as fleet is rationalised, and

vi) efficiencies in logistics and warehousing arising from the refurbishment and reconstruction of properties.

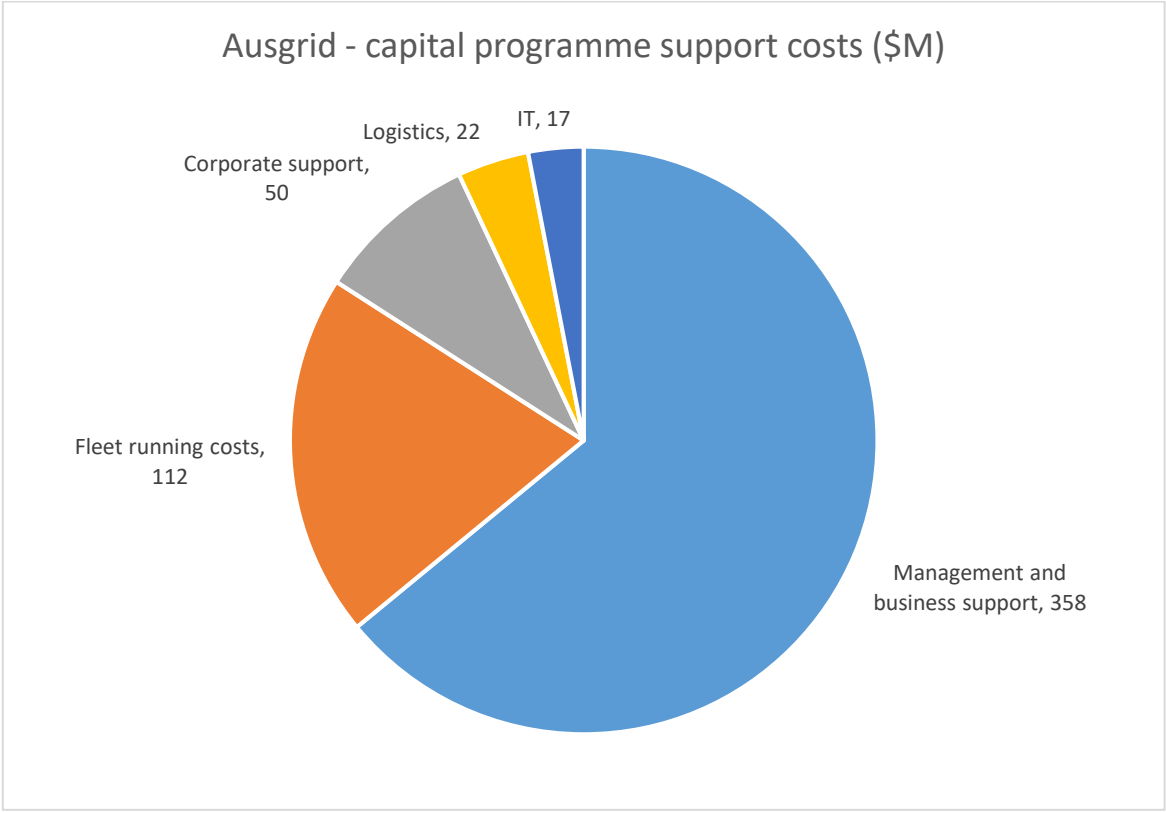


Figure 20, Source: Ausgrid capital support costs (from deep dive 7 February 2018)

b. Vehicles and plant

Ausgrid proposes to invest $124M in fleet and plant over the 2019-24 period.

We note that Ausgrid has decreased its fleet and plant from around 4600 units in 2012 to 2600 in 2017, a reduction of around 45%. This appears to be roughly in line with the change in staff numbers. Of interest, though, is the fact that the funding request for fleet and vehicles in 2019-14 is only 14% less than that of 2009-14.

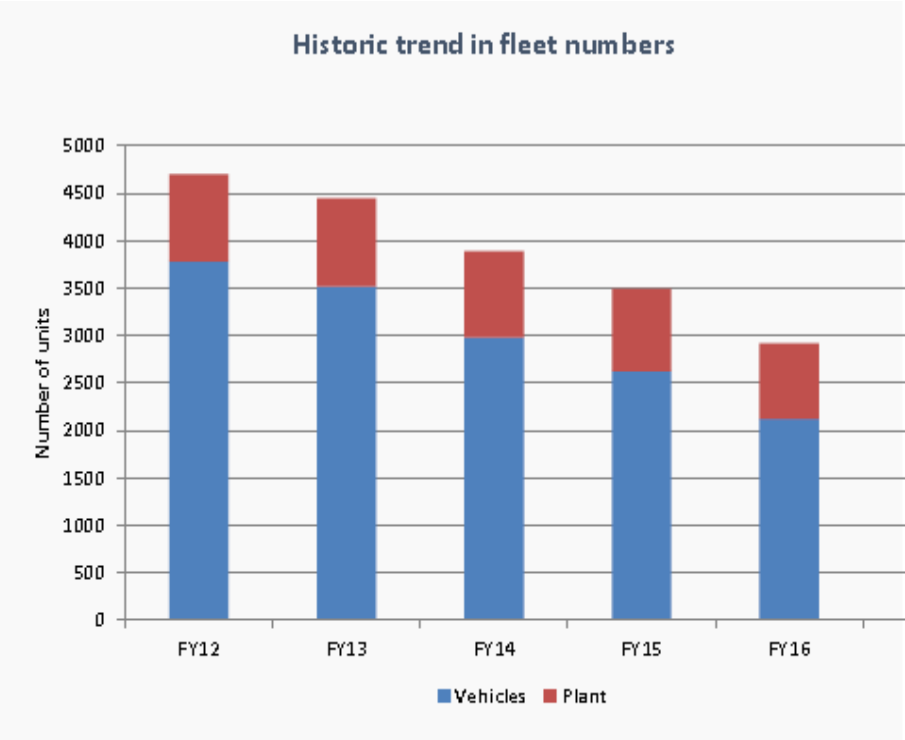


Figure 21, Source: Ausgrid, historical change in fleet numbers (from Deep Dive 7 February 2018)

Whilst we understand that vehicle renewal cycles and the mix of heavy and light vehicles has a significant influence on fleet investment, we suggest that the request for 2019-24 be reviewed as the amount of required capital appears inconsistent with the reported reduction in fleet numbers.

c. Property

In 2019-24, Ausgrid proposes to invest $208M in capital to consolidate their depots and workplaces. We note that this amount does not include the revenue from the sale of property that may be rendered surplus.

Information provided in the proposal (figure 14 below) notes a significant level of property expenditure commenced in 2018 (and will exceed 2014-19 allowances) and is planned to continue through to 2024. Across 7 years, this suggests an investment of approximately $340M. In addition, investment in property of close to $275M was made in the 2009-14 period.

Given the long - lived nature of property assets, this investment in property by Ausgrid is remarkable, even when Sydney real estate prices are considered. The operational

efficiencies being pursued by Ausgrid also suggest the opportunity for the consolidation, downsizing and rationalisation of property for the net benefit to consumers though lower costs.

Based on the information provided at the deep dive of 7 February 2018 we accept that action at the Zetland, Wallsend and Homebush depots may be necessary.

CCP10 believes that there is an opportunity for Ausgrid to review their property portfolio and these investment plans with the view of significant reductions, reflecting the reduction in staff numbers, modern work practices and the significant previous investments in property assets.

Figure 39.

Trends in actual and forecast non-network property capex ($ million, real FY19)

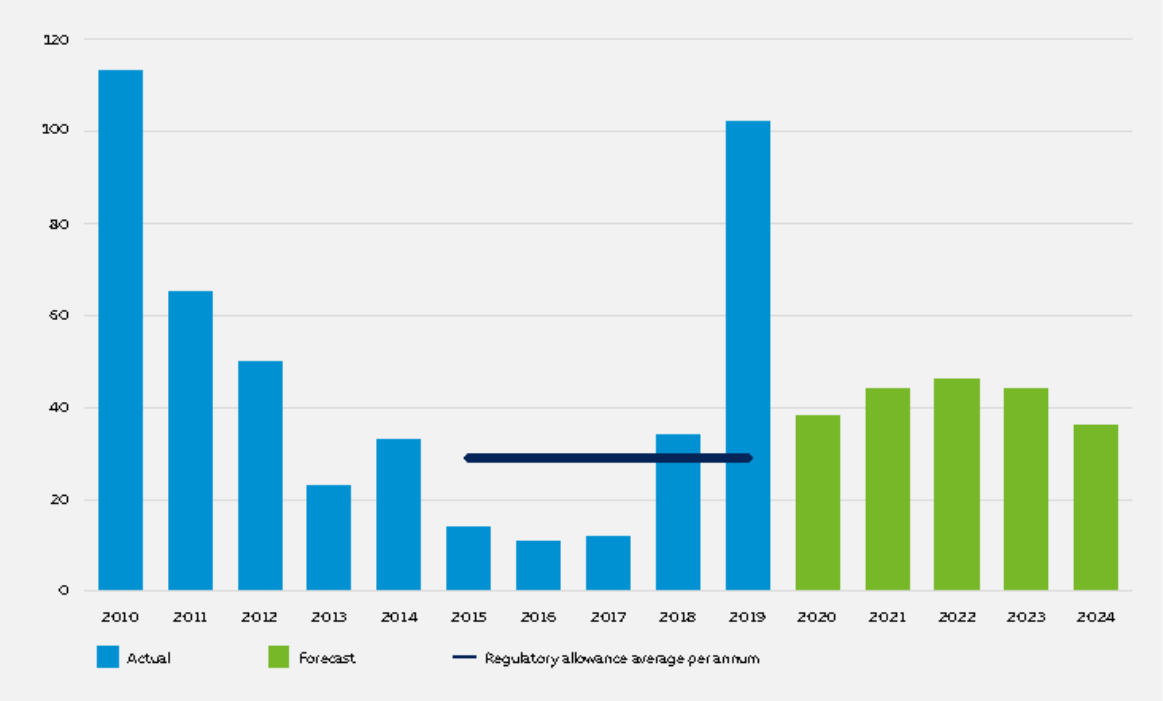


Figure 22, Source: Ausgrid investment in non-network property (Deep Dive, February 2018)

d. Information technology

Overview

In 2019-24, Ausgrid proposes to invest $216M in IT. This does not appear to include the $41M planned as asset replacement of the Ausgrid DMS, which is accounted for in the asset replacement category.

In this current period, Ausgrid are expecting to spend $232M, which is $73M more than the regulatory allowance. Ausgrid explain this over-expenditure as being for 'cyber security and the technology maintenance program'.

It is an understatement to say that CCP10 are very uncomfortable with the level of IT spend being undertaken by not only Ausgrid, but also many other network businesses. We see

little transparency in the reasons for these investments, with minimal consideration of options. Moreover, there appears to be very little impact of 'bad' IT decisions that consumers are asked to fund for some years. It is difficult to identify a poor IT investment, as its replacement or remediation is buried deep in terms such as 'upgrade', 'compliance' or 'refresh'.

We also challenge the trend of using benchmarking as a justification for IT investment. The trend for significant increases in IT investment by distributors is clear, and benchmarking this trend tends to only support an upward spiral in IT investment. We also have concerns about the use of 'what we spent on IT last year' as justification for further IT investment.

It is against this backdrop that we are uncomfortable about Ausgrid's proposal for the investment in IT.

Objectives

Ausgrid notes five objectives of IT that are intended to deliver business benefits and ultimately better outcomes for customers:

1) automation of manual and repetitive processes
2) cyber security
3) efficiencies from cloud infrastructure
4) field worker mobility and
5) data consolidation and analytics.

Overall, we support these intentions. What is unclear, however, is what investments have already been made in these initiatives, to what benefit and at what cost – especially against the background of the over-allowance expenditure in IT by Ausgrid in the current period.

Cyber security

We are not initially supportive of the $20M investment in cyber security. We note the endorsement of their programme by the Federal Government. Whilst this appears in itself as a reasonable investment, especially in comparison with the level of expenditure by other distributors, we note that cyber security is one of the reasons given for the over-expenditure of IT in this current period. ***Therefore, the true and total cost of Ausgrid's cyber security investment, and its benefits, remains unknown.***

Application Maintenance and Digital Enablement

A similar comment applies to Application Maintenance. Ausgrid intend spending $81M on their IT maintenance programme, despite the fact that an explanation of the $73M over-expenditure in the current period also refers to 'application maintenance'

Justification for the Digital Enablement programme (23.5M) is unclear. The Ausgrid Proposal (page 99) suggests the programme is required to meet customers' expectations of faster response times and data access. Ausgrid then also warn that not proceeding with this project risks costs increasing. ***We do not recall the engagement referring to the drivers of faster response times, so without further authentication of the need, we do not support this programme.***

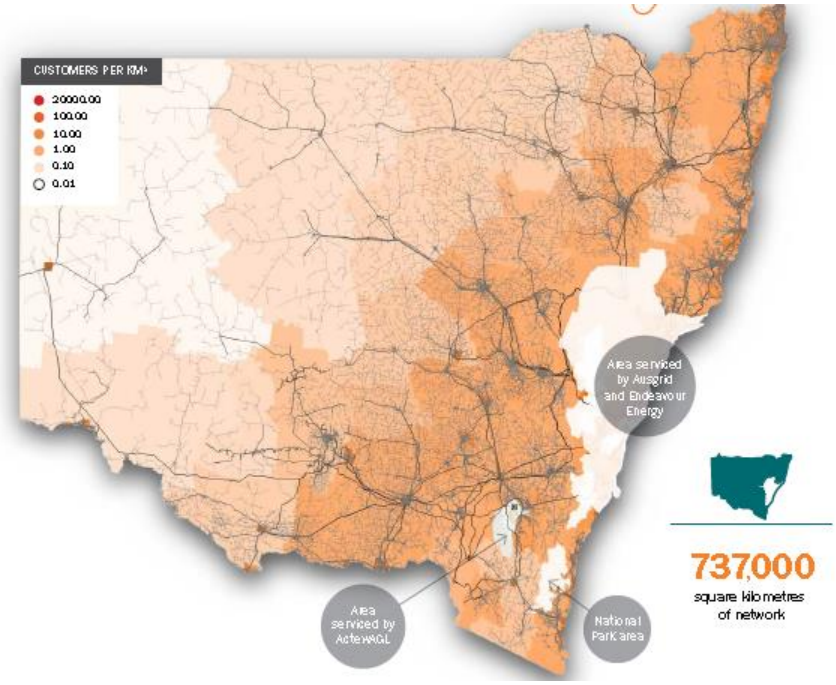
Summary

Ausgrid has not provided stakeholders with adequate visibility as to the business cases for the proposed investments. Whilst the objectives are admirable, we cannot support the

proposed level of investment in IT as information regarding the benefits and quality of previous investments is not provided, so the proposals are without context.

We would support a reduction in the IT investment of up to 20% on this basis.

Essential Energy



Essential Energy is a largely rural electricity distribution business, typified by a large geographical footprint, a number of urban regional cities and towns, and long overhead power lines.

With approaching 1.4M power poles, but a customer base of 840,000, the rule-of-thumb for a regional electricity supply as having 'more poles than customers' is proven true.

Such a topology presents a number of unique challenges. Unit costs for work generally include travel over long distances. Radial feeders often mean work involves power interruptions for customers, except when it is carried out using live-line techniques. Unplanned power interruptions can at times last for many hours.

Essential Energy has highlighted that their primary challenge is the efficient maintenance and replacement of distribution assets in a varied and often harsh physical environment and a background of flat or minimal demand growth, low growth in customer numbers and the changing customer energy requirements at the grid fringe.

Given the cost of operating and maintaining long distribution networks in the face of changing customer expectations and new technology, Essential is well-positioned to be at the forefront of the application of emerging technologies including energy storage, microgrids and small-to-medium scale solar, wind and hydro power generation across multiple sites.

3.18 Features of the Essential Energy Capital Investment Proposal

Format of presentation

Unlike the other NSW distribution businesses, Essential chose to carry out their engagement quoting capital investment amounts that included overhead allocation. In addition, much of

the public proposal is focussed on engagement and 'infographics'. Whilst there is nothing wrong with this approach, perhaps even commendable in some ways, it did make it difficult for some stakeholders to meaningfully compare Essential's proposal with others. CCP10 suggests that Essential take a 'bifocal' approach to information provision in the future, maintaining the customer-friendly presentations whilst also making the core expenditure information and investment build-up easily available.

Proposed Expenditure

In their revenue proposal for 2019-24, Essential have indicated a new approach to risk, customer service, operational and investment efficiency, underpinned by a significant investment in information and information technology, and a revision of traditional business practices. They described their proposal at the AER's Public Forum on 3 July 2018 as "anything but a business as usual proposal".

Essential are planning for a 21% reduction in capital expenditure when compared to the current period.

Essential Energy Capex ($M 2019%)	**$M, $2019, some rounding**
	2019-24 proposal
New Connections	20
Growth -/ Augex	167
Replacement	820
Reliability	
Other	
Capitalised Network Overheads	567
Total System	
IT	164
Property	94
Vehicles	169
Other	100
Total Capital	**2100**
Data is derived from the Endeavour proposal July 2018 and information from Deep Dive 1, 23 February (allowance)	

Chart 30, Source: Capital Expenditure proposal, Essential Energy

From their proposal and the preliminary engagement, a number of features of the Essential proposal have been identified:

I. Essential is forecasting a steady decline in overall capital investment of over 20% over the 2019-24 period, despite an increase in IT investment. This trend is consistent across all capital expenditure areas, including:

   a. replacement of assets - 8%

   b. augmentation and growth – 26%

   c. non-network expenditure (including IT) – 31% (excluding the impact of the capitalisation of property leases in 2019/20 of $26M) and

   d. capitalised overheads (network and corporate) – 19%.

II. Essential have forecast a steady decrease in connections expenditure, consistent with a similarly forecast declining connection rate of new connections. CCP10 understand the connection rate has decreased by 30% on 14/15 numbers, and Essential is expecting around 7,000 new customers to connect per annum.

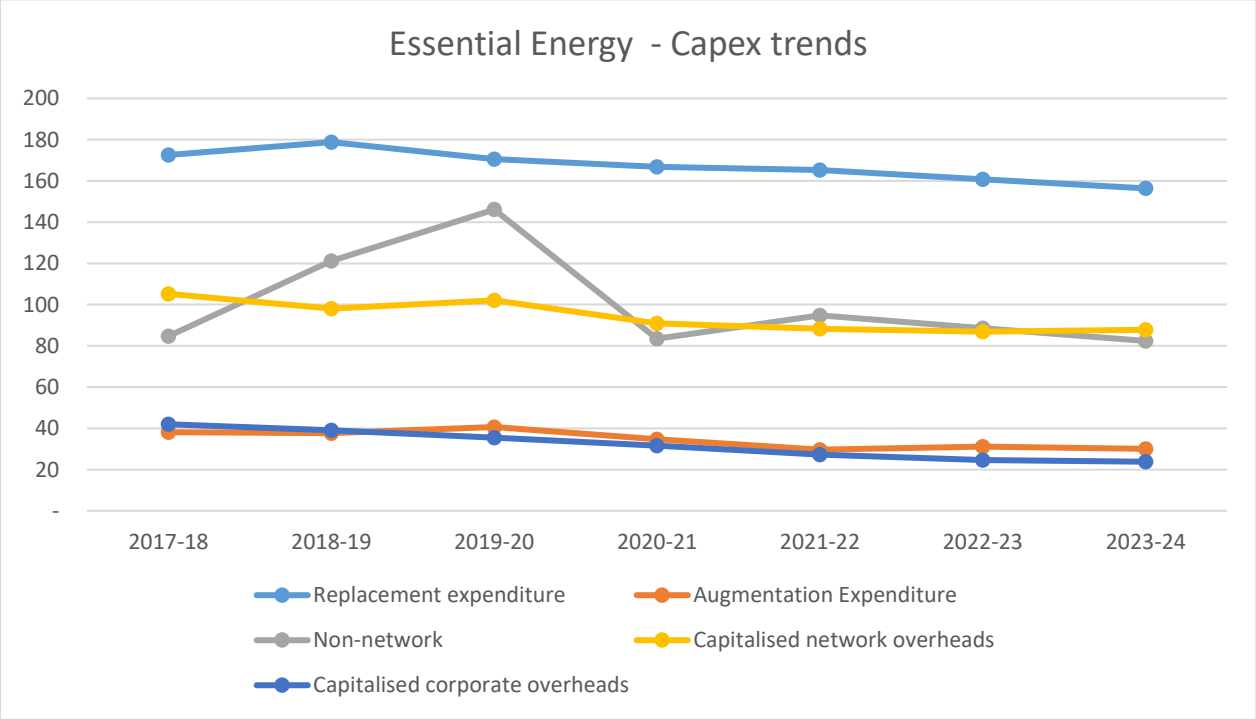


Figure 23, Source: Essential Energy - Capex trends (Source (RIN data, CCP10 analysis)

3.19 Essential Energy - Key Issues for CCP10

We are highly supportive of the aggressive approach that Essential Energy is taking in reducing capital expenditure whilst working to maintain service levels, safety and network performance. We recognise that Essential is underpinning these improvements though a

significant investment in information technology and data analytics, which, by all indications, is a valid and reasonable approach.

We do have concerns about Essential's ability to deliver these reductions in full. Implementing sweeping changes to IT, with the associated data management cultural change and ability to manage core costs such as labour, have been proven elsewhere to be difficult. The changes will also be subject to environmental factors.

We commend Essential for the initiative, and trust that Essential has a powerful and sensitive suite of supporting performance measures and monitoring mechanisms to ensure successful change without impacting the safety and quality of the electricity supply to their customers.

We note some specific investment intentions by Essential:

viii. Essential has accounted for the accounting standard change for property leases, most notably with a one-off capital item of $26M in 2019-20.

ix. Essential is also planning significant expenditure in LIDAR technology to support vegetation management and asset maintenance initiatives, being $56M in 2019-24, as well as an investment of $17M in the latter part of the 2014-19 period.

x. Planned IT expenditure is significant at $164M. Essential also plan to invest $80M in the latter part of 2014-19. We have not analysed this expenditure in detail, as Essential have taken steps to clearly link the IT investment to business performance improvement. CCP10 notes the leadership being demonstrated by Essential in this approach. It means that consumers are able to see the benefits from the IT investment and are able to support it. CCP10 encourages the AER to require other network businesses to support their proposed IT spend with clear and quantifiable links to enhanced business performance.

3.20 Investment in growth and network capacity

Essential Capex ($M 2019%)	**$M, $2019, some rounding**
	2019-24 proposal
Growth / Augex	167

Chart 31, Source: Essential Energy regulatory proposal 2019-24

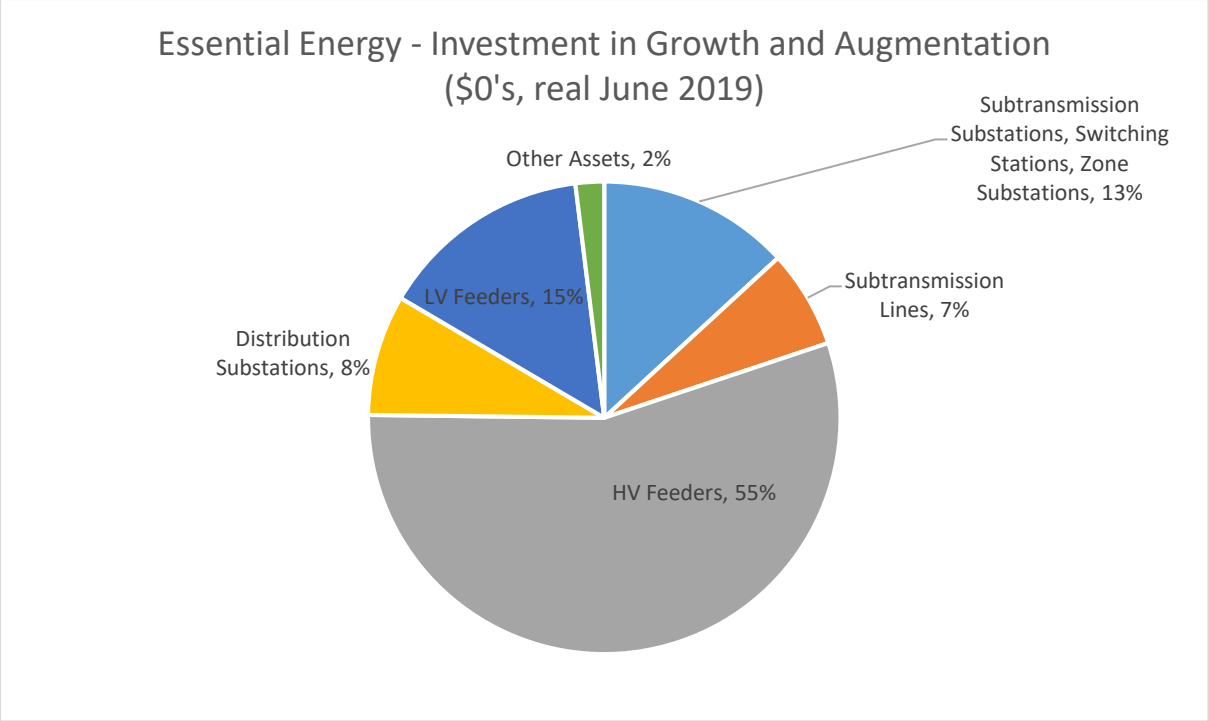


Figure 24, Source: Essential Energy - growth investment (RIN data, CCP10 analysis)

Essential Energy uses an elegant forecasting mechanism for demand and customer numbers that considered national commercial factors and the impact of new technologies. This is reflected in a quality Distributing Annual Planning Report (DAPR). Recorded peak demand have been within P10 estimates.

We note only a small number of major projects related to the sub-transmission network

The DAPR demonstrates minimal overall demand growth.

Based on information provided in the engagement prior to the proposal, we support the investment in augmentation and growth, reflecting low but localised development requirements on the 11kV network.

We have little evidence of activities by Essential working to reduce unit costs and project costs through various initiatives, although the overarching approach to try to reduce RAB growth by Essential supports the thinking that such action is being undertaken.

We support the AER in the pursuit of this information, as well as any variation to the investment funding where necessary.

3.21 Non-system capital Investment

It is noteworthy that the engagement and proposal are largely silent on demand management initiatives. We encourage Essential Energy to continue their pursuit of initiatives to consider energy storage and new technologies to mitigate demand growth, particularly at the grid fringe.

3.22 Non-system capital Investment

Information technology

Overview

Like other network businesses, Essential has invested significant amounts into information technology, including investments to meet compliance changes, such as metering.

The intention of Essential's expenditure is similar in kind to others – addressing equipment obsolescence, driving improvement and addressing cyber security concerns.

We note that the overall expenditure on IT capital and operations is expected to fall in the latter part of the 2019-24 period.

Our concerns regarding transparency, efficiency and project management of IT exist with Essential Energy as they do with other network businesses. In this case however, as Essential has demonstrated a commitment to the technology investment as a strong basis of improved business efficiency, we support the investment.

SECTION 5: Tariff Structure Statements

Network regulatory proposals are now required to include a TSS about how the network business intends to collect their approved, in aggregate revenue allowance. The TSS is a very important topic for engagement with consumer groups, whose input needs to be carefully regarded.

Our heat maps summary of the tariff structure statements from each of the businesses follows.

TARIFF STRUCTURE STATEMENT	Level 2	AUG	END	ESS
TSS Tariff Structure Statement	Effective analysis of customer needs (planning)			
	TSS proposal content (expressing)			
	Implementation (delivery)			
	Innovative and effective engagement (bringing customers along)			

Chart 32, Source: CCP10

We recognise that each network has a unique problem to solve, in setting their TSS. For example, some have a (potential) critical peak problem, in which case an aim of the TSS is for cost reflective tariffs to defer investment by incentivising consumers to lower their consumption at the network peak. Other networks have an excess energy problem due to exports from DER.

We make the following observations about tariff developments by New South Wales distribution networks:

- to date reform has been slow and fragmented
- there has been no single consumer perspective and
- there has been remarkably little dialogue between retailers and network businesses about the incidence of tariffs. The CCP view is that retailers should be much more actively involved in network tariff debates and indeed the primary audience for network tariff price signals should be retailers rather than customers.

CCP10 has been instrumental in encouraging consumer groups to develop *Pricing Directions* that have been developed to provide cohesive consumer perspective to assist networks, retailers and AER to accelerate reform.

We look forward to working with retailers on the design of network tariffs and pass-through prices to customers.

A separate CCP tariff subpanel (CCP21) has been established and ***CCP 10 supports their advocating for a faster transition to demand tariffs with a proposed mid regulatory period review of tariffs coupled with greater integration of demand management strategies.***

The CCP tariffs subpanel and CCP10 also highlights the need for consumer education, awareness and support, as needed, for people who are assigned (either mandatorily or on an opt out basis) to demand based tariffs. We highlight the relevance of the ACCC recommendation 14:

"14. The ACCC considers that steps should be taken to accelerate the take up of cost-reflective network pricing….

Given the potential for negative bill shock outcomes from any transition to cost-reflective network tariffs should retailers pass these network tariffs through to customers, governments should legislate to ensure transitional assistance is provided for residential and small business customers. This assistance should focus on maximising the benefits, and reducing the transitional risks, of the move to cost-reflective pricing structures. This includes:
a compulsory 'data sampling period' for consumers following installation of a smart meter
a requirement for retailers to provide a retail offer using a flat rate structure
additional targeted assistance for vulnerable consumers."

The proposed compulsory data sampling period to help consumers understand the options available to them is crucial for the effective introduction of demand tariffs.

CCP10 fully supports PIAC's submission on the 3 specific NSW network TSS proposals, and we endorse PIAC's submission rather than setting out additional observations here.

SECTION 6: Consumer Engagement

"Boards need to lead and engagement needs to go through the organisation – like a golden thread"

Sharon D'Arcy, CEO SustainAbility (UK), Speaking at the Gill Owen Memorial Lecture in Melbourne on 7 February 2018

Context for Consumer Engagement

The context within which the NSW businesses undertook their consumer and stakeholder engagement is important. Consumer engagement is currently an active area of development and learning within energy businesses across Australia, with rapid changes occurring over the last 2-3 years. CCP1 observed very little consumer engagement activity by network's New South Wales businesses in the development of their 2014-19 revenue proposals. By contrast, the situation has been different for CCP10 during the development of the 2019-24 revenue proposals.

Over recent years, consumer groups, governments and regulators have actively promoted increased consumer engagement as a means by which network businesses could better understand the impacts of their decisions and proposals on consumers. The goal is for this deeper understanding to lead to more efficient business practices. Energy Network's Australia (ENA) has actively encouraged a range of approaches to consumer engagement by networks.

Some of the earliest documentation of applied consumer engagement practice that was endorsed by the AER can be seen in proposals received from ElectraNet, TasNetworks and Australian Gas Networks (AGN), which is now part of the Australian Gas Infrastructure Group (AGIG). CCP10 suggest that there were three significant elements recognised by the AER and consumer groups as improved engagement practice that emerged from these three businesses during their revenue specific engagement activities in 2015. These elements are:

1. Each of the Network's Boards endorsed plans to commence engagement about two years before the regulatory proposals were due.
2. Each of the businesses produced preliminary / draft revenue proposals for stakeholder scrutiny 5-6 months before lodgement of revenue proposals enabling debate and compromise and leading to 'no surprises' revenue proposals.
3. the conduct of "deep dives" which were problem-solving discussions dealing with one or two specific aspects of the preliminary / draft revenue proposal. In this deep dive approach, a small group of nominees from stakeholders including consumer groups, expert staff from the network business and preferably AER experts came together for at least half a day to grapple with one of the more complex issues that the network was dealing with. The objective was to seek an agreed 'way forward' that was acceptable to all parties and that could be incorporated in the regulatory proposal that was ultimately lodged.

It is worth noting that the first Consumer Engagement award supported by Energy Consumers Australia (ECA) and announced by ENA at the end of 2017 was awarded to ElectraNet, recognising their leadership in applying these three elements to their regulatory proposal.

These brief comments do not intend to provide a detailed overview of the dramatic change in attitude to consumer engagement by energy network businesses from about 2016, but highlight that for the three New South Wales businesses, they commenced planning for their 2019-24 regulatory proposals with very limited past experience of consumer engagement. This was coupled with an industry wide interest in how to undertake consumer engagement, mixed with a degree of apprehension about methods and effectiveness. When considering the consumer engagement efforts of the three New South Wales businesses in mid-2018, it is easy to forget how much the shared experience and understanding of consumer engagement for energy network businesses has changed since each of the NSW businesses commenced their consumer engagement planning.

Another relevant fact is the complication of the unresolved 2014 - 19 remittal processes that were also underway during consumer engagement of the draft proposals for the subsequent period. The legal processes involved over many years in NSW in respect of the 2014-19 revenue proposals created limited trust between consumer groups and network businesses. CCP10 observes that the resolution of the 2014-19 remittals by Essential and Endeavour is assisting with the trust rebuilding process. However legacy issues from the 2014-19 legal processes have overshadowed the consumer engagement activities for Ausgrid and to a lesser extent Endeavour.[13]

Each New South Wales network business has sought to actively involve consumer groups and consumer interests in developing their regulatory proposals for 2019-24 and have been prepared to take risks and to try methodologies and approaches that were not part of 'business as usual'. CCP10 commends the businesses on the significant improvements in consumer engagement they have applied in developing their 2019-24 proposals.

Our 'heat map for the engagement aspects of the regulatory proposals is given below.

ENGAGEMENT	Level 2	AUG	END	ESS
Engagement 1 Quality (What was tried?)	Discovery phase (Scoping)			
	Methodology Effectiveness (information)			
	Engagement activities (effectiveness)			
Engagement 2 Effectiveness (What was heard?)	All contentious issues identified (completeness)			
	Long term Strategy for engagement (embedding)			
	Inclusiveness			
	Government & Legislation			
Engagement 3. Timeliness. (Including: was extension utilised effectively?	Prepare and set up early			
	Draft plan			
	Extension			
Engagement 4. Impact 'What was applied?'	Engaging the wider business to issues			
	Responsiveness to what was heard			
Engagement 5. Delivery of the key objectives	Best possible proposal, first time			

Chart 33, Source: CCP10

[13] CCP10 attended consultation by Ausgrid on 7 August 2018 with its CCC about a remittal proposal that Ausgrid stated it intends to lodge with the AER. At the time of preparing this response unfortunately the proposal had not been lodged with the AER and the Ausgrid 2014-19 remittal remains unresolved

The heat map shows generally positive assessment of consumer engagement by the businesses. Our main disappointments are the delays of release of draft plans and the lack of clear longer-term consumer engagement strategies for both Ausgrid and Endeavour Energy.

In our initial meetings with network businesses, CCP10 encouraged each of the three NSW businesses to embrace consumer engagement. We advised that CCP10 would not be critical of genuine attempts at consumer engagement that may have not delivered outcomes that were sought. We said that we would focus our consideration of the consumer engagement we observed under three broad headings:

1. what was tried?
2. what was heard?
3. what was applied?

The following is our response to these three questions for each of the businesses.

What was tried?

Each of the businesses has reported on the range of consumer and stakeholder engagement activities that they undertook in the lead up to lodging their regulatory proposals.

<u>Ausgrid</u>

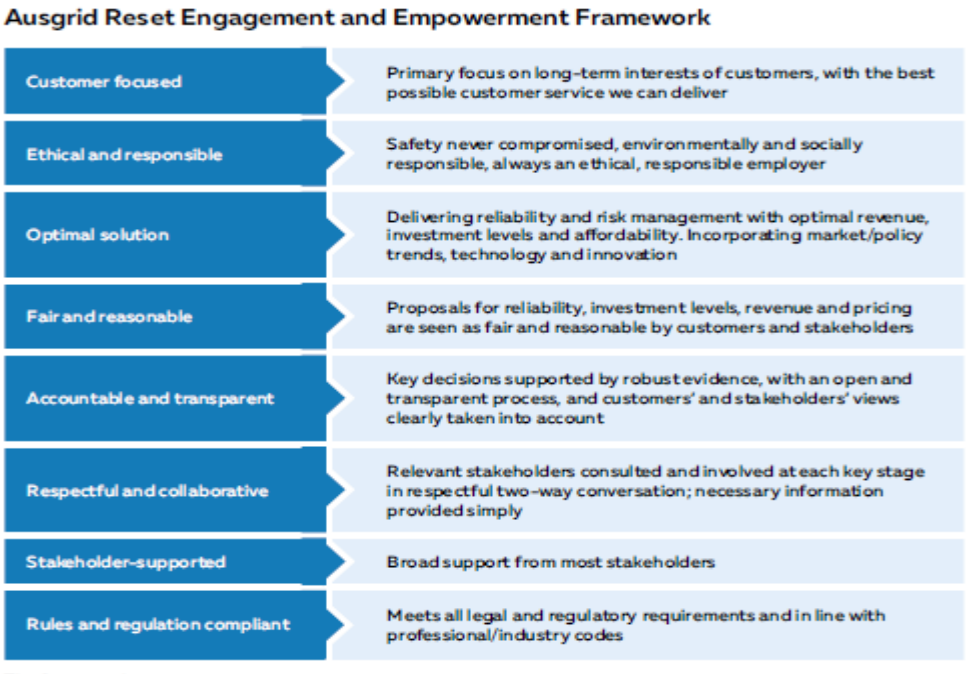


Chart 34, Source: Ausgrid regulatory proposal 2019-24

Customer and stakeholder and input into our Proposal

GROUP	CHANNEL	DESCRIPTION	INPUT INTO OUR PROPOSAL
Reset Working Group	Workshops Individual meetings	Customer advocates Highly informed on regulatory and energy issues	Tested details of the Proposal, capital expenditure (capex) program, operating expenditure (opex) forecasts and Tariff Structure Statement
Customer Consultative Committee	Workshops Individual meetings	Customer advocates Informed on energy policy and regulatory issues	Tested key components of the Proposal and Tariff Structure Statement at a high level
Retail energy businesses	Workshops Individual meetings	Part of the energy ecosystem Highly informed on regulatory and energy issues	Discussed how we plan to structure our prices and how our Proposal might impact businesses and their customers
Local council representatives	Workshops Individual meetings	Customers Informed on local regulations	Vegetation management, street lighting and planning
Customers	Deliberative Forums Focus groups Surveys	General population Equipped with unique insights on customer issues and preference	Explored customer expectations, long-term needs and attitudes to pricing and managing network peaks Explored customer expectations and preferences Tested key issues identified in qualitative research

Chart 35, Source: Endeavour Energy regulatory proposal 2019-24

Extended Stakeholder Consultation program

Stakeholder Consultation Document

After receiving the AER's approval to extend the submission deadline, Ausgrid reports that they expanded their consultation program to allow a greater level of community and stakeholder engagement on key aspects of their Proposal. They stated "Our extended consultation program included the release of a Stakeholder Consultation Document designed to:

- enable energy customers and stakeholders to understand the basis of our Proposal and to give further feedback, and
- provide our key stakeholders with clarity on the investments we intend to make and the services they will receive in the next regulatory period, so they can provide detailed feedback."

The following list is given by Ausgrid as groups with whom they consulted:

- Ausgrid's CCC
- customer advocates
- AER Consumer Challenge Panel (CCP)
- AER representatives
- Councils on the Ageing NSW (COTA)
- Energy Consumers Australia (ECA)
- Energy Users Association Australia (EUAA)
- Energy Water Ombudsman NSW (EWON)
- Ethnic Communities Council of NSW (ECCNSW)
- NSW Council of Social Services (NCOSS)
- Public Interest Advocacy Centre (PIAC)

- Retailer representatives
- South Sydney Regional Organisation of Councils (SSROC)
- Total Environment Centre (TEC)
- Urban Development Institute of Australia (UDIA)

Ausgrid also said "Additionally, we invited all customers and members of the general public to provide feedback to us via email to yoursay@ausgrid.com.au. We also worked closely with the AER during the extension period and held CCC and deep dive sessions."

Ausgrid identified the following key themes from their consumer engagement:

1. Affordability
2. Sustainability
3. Reliability.

The following graphic summarises the main messages that were heard by Ausgrid from various customer segments.

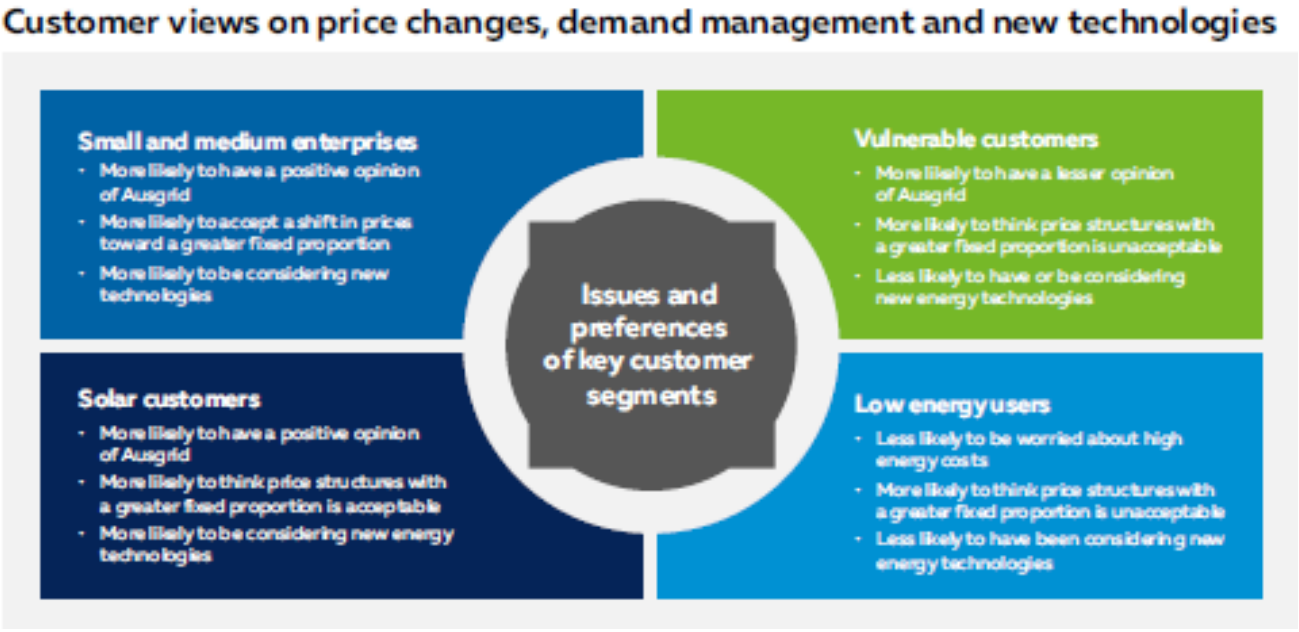


Chart 36, Source: Ausgrid regulatory proposal 2019-24

<u>Endeavour Energy</u>

Endeavour energy reports the following consumer and stakeholder engagement activities, with deep dives being the focus of the engagement that was observed by CCP10:

- Deep dives
  Endeavour Energy says "We pioneered a new engagement process as part of our extended engagement program that led to three full-day 'deep dive' sessions with multiple stakeholders. This was the first time the AER's technical teams, the AER's Consumer Challenge Panel, and key customer and stakeholder representatives came

together with senior managers to review a more detailed exploration of the evidence and underlying assumptions used to justify our operating and capital expenditure plans along with a break-down of costs allocated to specific programs."

- Peak consumer group engagement
- Feedback from the AER's Consumer Challenge Panel (CCP)
- Independent audit of engagement
- Focus groups
- Online community
- Deliberative planning forums
- Knowledge review
- Framework and Approach Issues Paper, Stakeholder Workshop and Webcast

Endeavour Energy used the following graphic to summarise their consumer and stakeholder engagement:

Chart 37, Source: Endeavour Energy regulatory proposal 2019-24

The following key themes were identified by Endeavour Energy as coming from their stakeholder and consumer engagement:

1. affordability,
2. reliability,
3. safety and security,
4. fair pricing,
5. growth,
6. transformation,
7. choice and control,

8. vegetation management, and
9. vulnerable consumers.

Essential Energy

Essential Energy released a three phase plan well before their proposal was due and summarised the plan elements as follows:

Phase 1: Consultation

- Online survey: 752 residential customers and 250 small to medium businesses
- 'YourSay': 34 residents and 4 businesses
- 11 interviews with large customers and stakeholders
- 7 deliberative customer forums with 513 attendees and internal and external observers
- 1 Customer Advocacy Group meeting
- 1 Vegetation Management Consultation Group meeting and
- 1 Streetlight Consultative Committee meeting

Phase 2: Consultation

- Online survey: 754 residential customers and 250 small to medium businesses
- 'YourSay': 11 residents
- 16 interviews with large customers and stakeholders
- 7 deliberative customer forums with 518 attendees with 54% repeat participants and internal and external observers
- 2 pricing workshops with 10 stakeholder groups
- 2 Customer Advocacy Group meetings
- 1 Streetlight Consultative Committee meeting
- 4 retailer meetings, and
- 1 LED street lighting meeting with local councils

Phase 3: Consultation

- Public release of engagement findings and regulatory proposal
- Draft Regulatory Proposal invitation for feedback
- YourSay online dialogue
- 3 "closing the loop" customer forums (Dubbo, Wagga Wagga and Port Macquarie)
- Survey
- Employee engagement
- 1 Customer Advocacy Group meeting
- 1 Vegetation Management Consultation Group meeting, and
- 1 Streetlight Consultative Committee meeting

1,598 people were engaged across the three phases and the various engagement processes.

The key themes that emerged as consumer priorities were:

1. safety,
2. affordability,
3. reliability and
4. innovation.

We note that "Affordability" ranked as the main issue across all three businesses, which is significant as a driver and the context for the regulatory proposals for each business. We note that essential Energy listed "safety" as their 'top' issue, but we regard 'safety as a given.' No one is going to argue against safety being of paramount importance in the day-to-day operation of every aspect of an electricity network.

CCP10 was able to observe a number of the engagement events for each business, mainly attending deliberative forums, community consultation events and "deep dives." Every activity that we observed was well organised, well attended and consumers were actively involved.

Ausgrid lost some momentum and probably some 'goodwill' through the late withdrawal of their intended discussion paper and struggled to 'catch up'. This meant it was harder for consumer input to be heard, understood and actively incorporated into the regulatory proposal. A late process meant that consumers were not given enough time to consider a significant amount of material and from a scheduling perspective, it was difficult to develop a full deep dive program as the 'engagement calendar' was already full for many stakeholders.

As with Ausgrid, Endeavour Energy intended to release a draft proposal for active stakeholder consideration, but this became a discussion paper which we observed provided a considerable amount of information, but lacked a narrative about what the business was trying to achieve. We observed that Endeavour Energy provided a considerable amount of information during the deep dive process but were lacking a unifying narrative. They were also not as open to changing perspectives in the difficult conversations in the short time available and disappointingly Endeavour's revenue proposal submitted on 30 April 2018 included an almost identical capex proposal and price path to those in their Discussion Paper from August 2017. CCP10 has continued our discussions with Endeavour since the end of April and we have observed a changing approach since the revenue proposal was lodged, with greater willingness to respond to consumers concerns. CCP10 welcomes this ongoing dialogue and encourages Endeavour to continue to work with stakeholders and consumer groups to refine its revenue proposal so that is capable of acceptance by stakeholders.

Essential Energy benefited from starting early with an engagement process that was embedded as part of business planning. They also tried a number of methods of engagement (refer figure 3, section 1). CCP10's experience of Essential Energy was that it was the business most open to feedback and responsive to concerns raised by consumers and other stakeholders. This responsiveness led it to change aspects of their regulatory proposal.. We also consider that Essential were open to having the 'tough discussions' in a constructive manner, as we experienced with discussions about the RAB impact on price path, for example. CCP10 remains very concerned about the projected RAB growth in

Essential's proposal and we look forward to further discussions with Essential about RAB minimisation strategies in the longer term.

What was heard?

We consider that each of the businesses were attentive in listening and documenting what they heard.
Ausgrid undid its good early engagement work by withdrawing the draft proposal and through ongoing staff turnover. The loss of institutional memory and relationships was profound and we believe that despite the commitment of the new consumer engagement team, the short time frame meant that the consumer engagement could not effectively be integrated into business planning. With two exceptions being the DM initiative which CCP10 supports and the reversal of the capital contributions policy, we felt that it was not possible for the engagement to influence the regulatory proposal lodged on 30 April. In CCP10's view the Ausgrid proposal is consistent with historical trends but it is not capable of acceptance as consumers are seeking a greater share of efficiencies and evidence of much more aggressive cost reduction strategies.

Some of Endeavour Energy's engagement appeared to seek more to persuade stakeholders rather than as an opportunity for them to listen. For example, CCP10 and other consumer groups strongly advised Endeavour that its narrative for the change in its capital contributions policy was not supported. We observed that Endeavour's approach seemed to be influenced by developers and reliance on growth to justify increased spending. Endeavour tried to persuade consumer groups on several occasions of the merit of its approach however this issue remains unresolved by the current proposal. Again we welcome the fact that Endeavour is continuing to discuss this issue with CCP10 and other consumer groups.

Essential Energy heard from a broad range of consumers as part of its integrated engagement framework and articulated trends and offered productivity dividends. They also demonstrated how affordability and consumer engagement directly informed its business KPIs and business plans.

Extensions

Each business was granted a three-month extension by the AER for lodgement of its draft revenue proposal. These extensions were useful for the businesses and certainly enabled more time for improved engagement. We also observe that the extensions were unique and similar circumstances are unlikely to ever happen again. The extensions were a major investment of time and goodwill for consumer advocates and AER staff. We recognise that there were aspects of transition for the 2019-24 proposals development due to the dismantling of Networks NSW and the change in ownership for Endeavour and Ausgrid. The extension has helped start the transition in NSW to a future where most engagement and negotiation between consumers, other stakeholders and network occurs before lodgement,

so there will be long term value from effective pre lodgement engagement and shared problem solving.

The extensions for the 2019-24 proposals also gave the businesses extra time to seek resolution for the 2014-19 remitted decisions. Each of the 3 NSW businesses and Evoenergy had been given the same opportunity by the AER board at a consumer roundtable held on 16 August 2017 to work with the AER and consumer groups to attempt to resolve the remittals as part of 'AER 2.0'. CCP10 recognises that Essential Energy responded to this opportunity immediately and its remittal was fully resolved by the time of the public forum for the 2019-24 proposals was conducted on 3rd July 2018. Endeavour Energy's remittal proposal had progressed to an AER draft decision by 20 July 2018 and CCP10 believes that consumer groups support the AER's draft decision on Endeavour's remittal. As discussed above, Ausgrid has not been able to respond to the offer by the AER board in the same way as Essential and Endeavour and at the time of lodging this submission on 8th August 2018, Ausgrid has not lodged a proposal to resolve the remittal almost 12 months after the roundtable meeting.

Consumer Engagement, What was applied?

Ausgrid

The following table is from Ausgrid's regulatory proposal and demonstrates a realistic effort to document the input from various consumer and stakeholder groups that was applied in the regulatory proposal as lodged. CCP10 is disappointed that the input from customers is described as "explored customer expectations…" and "tested issues …" rather than direct application of input provided.

Customer and stakeholder and input into our Proposal

GROUP	CHANNEL	DESCRIPTION	INPUT INTO OUR PROPOSAL
Reset Working Group	Workshops Individual meetings	Customer advocates Highly informed on regulatory and energy issues	Tested details of the Proposal, capital expenditure (capex) program, operating expenditure (opex) forecasts and Tariff Structure Statement
Customer Consultative Committee	Workshops Individual meetings	Customer advocates Informed on energy policy and regulatory issues	Tested key components of the Proposal and Tariff Structure Statement at a high level
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Local council representatives	Workshops Individual meetings	Customers Informed on local regulations	Vegetation management, street lighting and planning
Customers	Deliberative Forums Focus groups Surveys	General population Equipped with unique insights on customer issues and preference	Explored customer expectations, long-term needs and attitudes to pricing and managing network peaks Explored customer expectations and preferences Tested key issues identified in qualitative research

Chart 38, Source: Ausgrid regulatory proposal 2019-24

Endeavour Energy

The following table from Endeavour Energy is also taken from their regulatory proposal and provides very clear description of key issues raised by customers and stakeholders and documented commitment from the business about "what we will do in response." This table demonstrates that some consumer input was heard and well applied.

5.3.3 What we heard from our customers and how we intend to respond

What customers and stakeholders said:	What we will do in response:
Affordability Affordability is the number one concern for many of our customers, but not at the sacrifice of safety or reliability. Electricity is valued because it provides security and lifestyle benefits to residential customers and communities, and because it connects new homes and underpins prosperous businesses and regions. There's a clear expectation that Endeavour Energy's plans should reflect measures to continue downward pressure on our part of electricity bills by containing capital investment, without compromising safety.	• Deliver a decrease in network charges of one percent each year, in today's dollars, for the period 2019-24. This figure includes our proposed remittal. • Deliver these decreases while implementing pricing reforms that wil provide increased opportunities for customers to control their bills. • Lock in and maintain our real price decreases throughout the next regulatory period building on our demonstrated history of responding to incentive regulation. • Return $240m (FY19 dollars) to our customers through these reduced charges during the next regulatory period. • Continue to reduce underlying costs which will continue to reduce prices for customers. • Deliver real price decreases for our public lighting customers. • Encourage greater efficiency in the way our network is used by introducing an opt-out seasonal demand tariff for new customer connections.

Chart 39, Source: Endeavour Energy regulatory proposal 2019-24

Essential Energy

CCP 10 is satisfied that Essential Energy has effectively integrated consumer and stakeholder input into all aspects of it regulatory proposal and has effectively applied input that they have sought and heard.

Where to now?

A considerable amount of "engagement capital" has been 'cashed in', by the three New South Wales network businesses with mixed results from a consumer perspective. Of the three regulatory proposals that have been lodged, ***we consider that the Essential Energy proposal is capable of being accepted, with some potential minor adjustments.*** That being said we look forward to further engagement with Essential on RAB growth.

CCP10 does not consider that either the Ausgrid or Endeavour Energy proposals, as lodged, are capable of acceptance. We contend that both of these businesses need to engage further with consumers and stakeholders to modify their proposals and to present more realistic revised revenue proposals.

All three businesses also need to be advising consumer and stakeholder interests about their plans for next steps for ongoing engagement to build trust, shared knowledge base and revenue proposals that are capable of acceptance at the time of lodgement. The key to success in our view is integration of consumer engagement into BAU and the business planning cycles of each business.

SECTION 7: Business Specific summaries

Summary

Key issues that we have identified across the NSW business proposals are:

- Price paths: are they the best that consumers could expect?
- Productivity: Is zero productivity over 5 years acceptable?
- IT expenses are large, do they constitute good value for money for consumers?
- Capital Contributions
- Lack of DM and constant investment in capex for network solutions
- Capex, are some capex proposals larger than necessary?

Ausgrid:

Heat map greens:

- Price Path, initial reduction
- Application of DMIS

Heat map reds:

- IT expenditure seems high
- Non network capex seems high

Other Comments

The PSF process has been an important one for both Ausgrid and the transmission business TransGrid. CCP 10 asked Ausgrid about the approximately $240million cost associated with PSF to replace oil filled cables. These costs are being picked up by TransGrid and we asked if this cost have been taken out of the capex bid by Ausgrid for 2019-24, they said that it had. Meaning that when compared with the 2014 -19 capex budget, 2019-24 should have been reduced by approximately $240 million. Excluding this cost, the capex bids for 2019-24 are similar to 2014-19. When we think 2019-24 should be lower.

CCP headline view: The Ausgrid 30th April 2018 proposal is not capable of being accepted.

Endeavour Energy:

Heat map greens:

- deep dive engagement processes with stakeholders and consumer groups
- TSS most responsive to consumer interests
- Bushfire planning and environmental considerations

Heat map reds:

- capital contributions
- lack of evidence of future thinking and planning (e.g. network of the future)

Other Comments

There is no doubt that the projected rapid expansion of Western Sydney provides a major challenge to Endeavour Energy. They said *"The population of Western Sydney is expected to increase by 900,000 over the next 20 years. That means that each year over the next decade, more than 20,000 new customers will require new electricity services."*

"We suggest that there are some opportunities that can also be embraced in Western Sydney. Relationships with property developers are a case in point. We with expressed disappointment at the capital contributions agreements and where Endeavour Energy could be more proactive with property developers in seeking more energy efficient constructions, so that future customers demand will be lower and costs to endeavour in providing the network would be lower too.

CCP headline view: The Endeavour Energy 30th April 2018 proposal is not capable of being accepted. We recognise that discussion and some engagement has occurred since the proposal was lodged and since the public forum that is likely to bring the proposal closer to being able to be accepted, from a consumer perspective.

Essential Energy:

Heat map greens:

- comprehensive consumer engagement strategy planned in advance and well executed
- strong focus on driving efficiency and productivity improvements

Heat map reds:

- Price Path for 2019 to 24 that exceeds CPI
- underdeveloped narrative about where the businesses going: Network of the future

Other Comments

A significant issue that arose during the pre-lodgement phase was that after extensive engagement and commitments to reduce operating and capital costs, the projected price path for Essential Energy was still for something greater than CPI. Tough discussions about the rising price path were held soon after the release of the draft revenue proposal in February 2018. The reason being the carried forward impacts of significant past RAB growth, particularly during the 2009-14 period. Essential energy were prepared to actively investigate their RAB and future RAB price impacts. Essential have committed to ongoing consideration about the issue, including further consultation with consumer interests and other stakeholders. To their credit, Essential Energy have been upfront about the issue in the regulatory proposal and in dealings with consumers. While the impact on the 2019-24 price path of past higher capital expenditure and associated RAB growth is not ideal, we believe that they have done all that could be reasonably expected to manage this less than desirable situation.

CCP headline view: The Essential Energy 30th April 2018 proposal is capable of acceptance, from a consumer perspective, but will require ongoing discussion about approaches to reduce the carried forward impacts of the RAB.